



IKEA FACTS

WEDGE DOWEL

At IKEA we constantly question existing solutions in order to save time and money for our customers. The wedge dowel is one of our most recent inventions, cutting the assembly time of IKEA furniture by more than half. One of the latest applications of the wedge dowel technique is found in the award-winning LISABO tables.

- Questioning existing solutions is part of the roots and culture of IKEA. We invest heavily in innovation throughout our supply chain.
- The innovation process behind the wedge dowel, a small fitting solution, started in two main needs. Firstly, to make it more fun and easy to assemble IKEA furniture by simplifying the assembly process and reducing the assembly time; secondly, to make machine-made furniture more beautiful by removing visual fittings.
- The patented wedge dowel was developed by three engineers working in the IKEA prototype lab in Älmhult. Later on it was industrialized by two of our Polish suppliers: IKEA Industry Lubawa and IKEA Industry Zbaszynek.
- The wedge dowel is made from wood or plastic and has milled grooves all around, much like a threaded screw. It clicks into pre-drilled holes, making screws and tools unnecessary and shortening the assembly time for a piece of furniture by 50 to 80 percent.
- When using the wedge dowel to assemble furniture, the result is a complete piece of furniture with nearly invisible fittings.
- It took several years to transform the idea behind the wedge dowel into a product on the market. One of the challenges was the need to adapt the production to tolerance levels that were around 2.5 times lower than previously. In order to secure the precision, IKEA Industry invested in optical monitoring systems and employee trainings.
- Furthermore, IKEA Industry had to make significant investments in new machinery to produce different wedge dowel solutions.



- In 2013, the first machine-made wedge dowel fitting solution reached the market. It was used to assemble TROMVIK cabinets and chest of drawers sold in Belgium and Poland.
- Since 2013 the wedge dowel technique has been developed and applied to several other products, such as VALJE cubes, REGISSÖR cabinets, TINGBY tables and LISABO tables.
- To simplify the assembly process is a long term mission. IKEA continuously develops new solutions and improves existing ones.
- The wedge dowel used to make the LISABO table is an example of an existing solution that has been further developed. The LISABO wedge dowel has been reshaped and comes attached to the table legs. The legs are inserted into holes on the table-top and locked.
- 2016, the LISABO table series received a design award in one of the world's largest design competitions, the Red Dot Awards. The LISABO table series has been designed by Knut and Marianne Hagberg.
- The LISABO tables are made by our supplier IKEA Industry Lubawa. Their investments in new machinery has improved the production efficiency of LISABO tables by 3500%, going from one table every seventh minute to five tables per minute, thereby reducing production costs.
- IKEA Industry Lubawa was established in 1992 and is located in Lubawa in Poland. Besides LISABO tables, they also make beds, shelving units, wardrobe doors and cabinets. This year they will produce more than 160 000 LISABO tables. The total production in Lubawa has a yearly turnover of around 200 million Euro.
- IKEA Industry Lubawa employs about 1500 people. About 25% are women.
- IKEA Industry consists of more than 40 production units in Asia, Europe and North America and is owned by IKEA Group. Last year, IKEA Industry was responsible for 11% of the total production for IKEA.