



FLAGSHIP PRODUCTION

SWG Production grasped the opportunity to turn its new production hall into a flagship showcase for its own product lines, producing a striking modern timber construction and using its own connecting technology – including 250,000 screws...

Thanks to increasing demand for its products, SWG Production opened a flagship production hall at its location in the Hohenlohe industrial park near the A6 motorway.

Showcasing timber construction, timber engineering and environmentally-friendly construction, the huge 12,800 m² production hall measures almost 97 metres in width and 114 metres in length.

The project expanded after conception, notably with an extra office building. Offices were initially planned to be part of the production hall, before being upgraded to a small hall extension during the planning phase and finally into a full blown separate office building over three stories, with an exhibition area where SWG Production can present its products and new technologies. An enclosed bridge links the building to the viewing bridge of the production hall.

High-performance building material BauBuche (specially glued beech wood) was used for the roof structure of the huge production hall. An enormous number of large ventilation pipes run under the roof, the filigree roof structure of the five-naved hall, consisting of truss girders, each of which from the viewing direction rests on only one intermediate support, is still visible. This highly complex and meticulously worked out structure was developed and planned by the engineering office SWG Engineering in Rülzheim, according to the architects' plans.

Speaking of whom, architect Hermann Kaufmann noted that the high load-bearing wood-based BauBuche material made it possible to realise a roof structure for a hall of this size with such slender components and just one intermediate support, "A mini-

SWG Production's new 12,800 m² production hall



mum of supports guarantees a maximum of flexibility in production. This aspect was a key parameter in the design," says Kaufmann. Architect Christoph Dünser adds: "Imagine an empty Airbus A380 with a weight of 275 tons on each of these supports, then you will get an idea of what load each of them can take."

The transmission of such forces, from the truss girders which are stretched up to 42 metres into the columns, works thanks to an extraordinary node connection, the so-called puzzle node. It was developed by structural engineer Henning Ernst from SWG Engineering.

It's believed to be the world's largest roof structure made of BauBuche.

SETTING A SUSTAINABLE EXAMPLE

SWG Production also wanted to set an example and showcase the positive effect of natural building materials for climate protection through CO₂ storage in wood. By using BauBuche, the amount of wood required could also be reduced to a minimum in a resource-saving manner. And finally, the internal effect also plays an important role – the natural and comfortable atmosphere in the hall creates a pleasant working environment. "That's an important aspect for our employees who spend the whole day in it," says SWG Managing Director Alois Wimmer at the end of a plant tour for Reinhold and Carmen Würth.

SWG Production is part of the Würth Group and is one of the largest screw manufacturers in Europe.

We have more pictures of SWG Production's ground-breaking production hall in August 2020 edition of *Torque Magazine*. Find it at torque-expo.com/torque-magazines.

www.swg-produktion.de



Natural light and the huge BauBuche roof give the new production hall a unique look