



Ultramodern spatial sculpture relies on DIAB composites

Forget Venus de Milo and Michelangelo's David, the future of sculpture may lie in composites. At least if you take a look at Virtual Tectonics 1, a sophisticated three-dimensional sculpture developed by The Bureau of Advanced Tectonics (BAT) and built by Hahlbrock using DIAB's composite technology.

The 2.3 meter high sculpture consisting of three blades with a diameter of almost 8 meters and sitting in front of the gates to the CFK Valley Stade some kilometers away from Hamburg is a real eye-catcher.

Exploring the future of composites

"The sculpture is supposed to describe the link between the formal language of contemporary architecture and the structural possibilities of new and diverse materials", explains Arnd-Benedikt Willert-Klasing, one of the architects at The Bureau of Advanced Tectonics (BAT), the architectural firm in Hamburg that lies behind this futuristic work of art.

Combining the unique properties of two composite materials: carbon fiber reinforced plastics (CFRP) and glass fiber reinforced plastics (GFRP), this lightweight sculpture changes

appearance depending on angle of view. It opens and closes, framing different perspectives and virtually transforming in front of the viewer. Lightweight masterpiece built with DIAB composite material

This marvelous creation was manufactured by Hahlbrock, a specialist for large-sized composite and sandwich structures, with the support of different partners to the CFK Valley Stade, a competence network for high performance composites. DIAB sponsored the project by supplying material. To achieve ultimate strength, the choice was Divinycell H80 .

Hahlbrock used advanced computer-aided engineering technologies like CAD, CAM and CNC supported milling of the DIAB core material to efficiently translate the architectural model into the real sculpture.

Being lightweight Virtual Tectonics 1 can easily be taken apart. The blades can then be transported separately and re-assembled in less than a day. The combination of free shape, high strength and low weight can only be achieved using composite materials.

First Hamburg and then the world

The sculpture was first shown in August 2013 at the international building show IBA and the International Garden Show (IGS), both in Hamburg. After these two exhibitions it was moved and put in the front of the entrance to the CFK Valley Stade, close to the local Airbus factory in Stade, where it will stay for a year and a half.

The architects behind Virtual Tectonics 1 hope that the sculpture will continue its journey to spread attention about new architectural materials. And perhaps one day, you will be able to admire it in the Louvre?