

Media Release Neumarkt, January 28, 2019

Max Bögl is among the Top 3 nominees for the bauma Innovation Award 2019

Mobile Fabrication creates Hybrid Towers worldwide

The Hybrid Towers of the Max Bögl Wind AG are known for their high hub height and contribute to efficient electricity generation using wind power. Thanks to Mobile Fabrication, the production of concrete elements is possible at almost any location in the world. The globally unique production concept is nominated in the category Construction Process/Construction Work for the bauma Innovation Award 2019.

Hybrid Towers with German factory quality far from home: This is possible thanks to the Mobile Fabrication of Max Bögl Wind AG. The innovative concept, which makes the production of hybrid wind towers directly at the wind turbine site possible, is among the Top 3 nominees at this year's bauma Innovation Award in the category Construction Process/Construction Work. "Mobile fabrication allows German engineering to be practiced wherever it is needed. The expansion of renewable energy requires innovative and courageous ideas. We are delighted to have been nominated for the bauma Innovation Award and that the achievement of our employees has been recognized," says Josef Knitl, Board Member of Max Bögl Wind AG. The award ceremony will take place on April 7, 2019 as part of the opening of bauma in Munich.

Mobile manufacturing means adding value locally

The mobile production plant consists of four halls on an area of 40,000 square meters – the equivalent of ten Football pitches. The required production facilities are located throughout the halls, including a concrete mixing plant, a water treatment system and a modern concrete milling system. The advantages of mobile manufacturing are clear: Local raw materials and labor make the Hybrid Towers local content and lead to higher cost efficiency for the project. Fewer heavy-load transports protect the infrastructure, the climate and the environment. The high quality standards for German factory manufacturing are maintained.

Milestone reached for wind farm in Thailand

In Thailand, the first project of the Mobile Fabrication was successfully completed. Max Bögl Wind AG erected 90 wind towers in Huai Bong for the Thepharak wind farm with hub heights of 156.5 meters each, far from home with German production quality. In August 2017 Max Bögl Wind AG began shipping 262 freight containers from Sengenthal in Bavaria to Haui Bong in Thailand, a journey of 17,000 kilometers. At the final destination, a good 260 kilometers northeast of Bangkok, the world's



first Mobile Fabrication for wind turbines was constructed in just a few months using 3.5 tons of advanced equipment. A short time later production began with local resources and around 200 mostly Thai workers.

Accurate to the millimeter anywhere in the world

The heart of mobile manufacturing is the CNC concrete milling system. It ensures that the concrete segments of the Hybrid Tower are milled to an accuracy of 1/10 of a millimeter, the same quality as stationary installations. The advantage of CNC milling also comes to bear in mobile production: the concrete tower can be erected under any weather conditions.

Variable and modular carousel system

Compared to other suppliers of wind turbines, the mobile production of Max Bögl Wind AG can be expanded modularly by the semi- and fully automated carousel production system, depending on the project requirements.

Image:



Consists of four halls: the mobile production plant of Max Bögl Wind AG. Image source: Max Bögl Wind AG, Reinhard Mederer





First project successfully realized: Hybrid Towers in the Thepharak wind farm. Image source: Max Bögl Wind AG



Loading of the Mobile Fabrication on a train at the freight depot in Nuremberg. Image source: Max Bögl Wind AG, Reinhard Mederer

About Max Bögl Wind AG

Using renewable energies more efficiently and actively promoting the energy transition. This is the principle behind Max Bögl Wind AG with its innovative technology solutions. The company is Germany's market leader in manufacturing, delivering and erecting Hybrid Towers and holds the record for the world's highest wind turbine tower with a hub height of 178 meters. Max Bögl Wind AG is also setting new innovative standards in the energy storage industry. With the Water Battery, an entirely new type of flexible and small pumped-storage power plant has been developed which combines renewable energies with large-scale storage facilities for the first time. The turnkey portfolio complements the max.power division with the development of concepts suitable for the placement and marketing of generated energy. Max Bögl Wind AG is an affiliate company of Max Bögl. The corporate group from Sengenthal near Neumarkt in Bavaria is one of the top 10 largest German companies in the construction industry, and has been operating in the wind sector since 2010. Founded in 1929, the family-owned company with around 6,500 employees worldwide has an annual turnover of over 1.65 billion euros.



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