

# Press Release



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Successful production of a polyurethane wind rotor blade at Goldwind

## **Covestro developed innovative machine for the direct infusion of polyurethane rotor blades**

- **Wide range of output and excellent metering accuracy**
- **Smart flow rate control with “on the fly” changes**
- **High-performance degassing and accurate temperature control**
- **Innovative software design and powerful data management system**

Wind power is one of the most promising renewable energy sources due to its global availability and the technical progress already made. This is also reflected in the development of wind power capacity, which is seeing double-digit annual growth across the globe. However, cost-efficient processes for manufacturing wind power plants are in greater demand than ever to enable further expansion and for competing with traditional energy resources.

For this purpose [Covestro](#), one of the world leading companies in high performance polyurethane solutions, provided the leading wind turbine blade manufacturer [Goldwind](#) with a special Baulé® infusion machine for processing its high performance polyurethane resin. Goldwind and Covestro achieved a major breakthrough with the development and production of a 64.2 m long polyurethane turbine blade.

“Covestro Elastomers developed a tailor-made Baulé® machine for the direct infusion of polyurethane rotor blades,” said Philippe Jeantin, Global Head of Machines Division, Business Segment Elastomers at Covestro. “We designed this machine to solve various challenges involved in this manufacturing process, e.g. process under vacuum, high volume casting and speed of resin infusion. This machine is therefore combining a very accurate dosing, a large variable output controlled by in-mold pressure and a real time data management to ensure a high quality direct infusion process for these large rotor blades.”



### **New vacuum infusion equipment for polyurethane resin processing**

“Today, as the wind energy market is growing, we are faced with the challenge of producing ever-larger wind blades,” says Liu Baofeng, Professor-level Senior Engineer, Head of Windblade Material Development at Goldwind. “We were therefore looking for a reliable partner to provide us with the dispensing equipment which is suitable for processing the PU resin especially developed for larger wind blades. Our manufacture was successful thanks to the machine that Covestro engineered for the production of a 64.2 meter turbine blade. It will allow us to propel the whole industry to make sustainable and innovating progress towards such large blades. In the future, both sides will strengthen the cooperation in materials and related equipment, for promoting a continuous innovation and upgrading of materials for rotor blades.”

“The successful trail of this such long rotor blade manufacture using polyurethane resin proved that our Baulé® machine is qualified for the direct infusion process,” adds Simon Chen, Head of Covestro Elastomers in the Asia-Pacific region. “Our local machine team in China will support our partners to achieve rapid growth and technical upgrading of the wind power industry.”

With the rapid development of the wind power industry, larger wind turbine blades have become increasingly popular in the industry. Covestro has been committed to providing innovative and sustainable products and cost-effective integrated solutions for the wind power industry to cope with market requirements and to support the expansion of renewable energy. In cooperation with industry partners such as Goldwind, Covestro will continue to contribute to the efficient development of the wind power industry.

### **About Covestro:**

With 2019 sales of EUR 12.4 billion, Covestro is among the world’s largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites worldwide and employs approximately 17,200 people (calculated as full-time equivalents) at the end of 2019.

### **Forward-looking statements**

This news release may contain forward-looking statements based on current assumptions and forecasts made by Covestro AG. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Covestro’s public



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