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Profile: OBO Bettermann of North America

For more than a century, OBO Bettermann has forged a reputation as a quality producer of components for the electrical installation industry.

By Anna Claire Howard

Wind-generated power has long been established as a continuous source of renewable, clean energy. Modern high-performance wind power systems result in high demands for the quality and reliability of the components and parts that are used. The electrical infrastructure in particular plays a crucial role in the functional safety of the entire system.

That's where OBO Bettermann of North America comes in.

With its parent company founded in Germany in 1911 by Franz Bettermann as a sheet metal factory for fastening technology, OBO Bettermann — derived from the German term "ohne bohren," meaning without drilling — has made a name for itself in the wind industry, like all the industries it serves, by providing parts that incorporate the company's innovative thinking and its eye for high-quality value to both engineers and installers, all the while maintaining family ownership. According to Dennis Boone, the general manager at OBO Bettermann of North America, Inc., this is the key to the company's success over the last 100 years.

"Our customers have come to know us as both a company and a partner," Boone said. "Many of the top wind tower manufacturers from across the world are customers that have grown alongside OBO over the last century and even more recently. These relationships have given OBO the opportunity to supply cable management as well as surge and lightning protection products to today's most trusted wind tower manufacturers."

OBO Bettermann has more than 3,000 employees in 60 countries and 40 subsidiaries with its global headquarters in Menden, Germany, and its North American headquarters in King of Prussia, Pennsylvania. According to Boone, a number of the 40,000 parts offered by the company were designed with the wind industry in mind. OBO Bettermann provides complete solutions for all of the electrical equipment for said wind power systems, from clamp clips and cable support systems to surge protection and lightning protection systems. It's able to offer the experience of a systems provider that is seasoned with working on global large-scale projects.

"Our products can be found in every aspect of the electrical infrastructure of the wind tower from the blade to the base," Boone said. "Magnetic peak current sensor (PCS) cards installed in the blades can record pulsed or lightning currents. In the base, surge arrestors protect expensive electrical equipment from damaging surges, and our equipotential bonding systems run through the foundation and up the tower to safely reduce lightning and current potential. Keeping the tower properly grounded, making sure cable trays can be easily accessed, and protecting against surges can all assist in lowering the amount of service required and reducing some of the risk associated with service and installation."

OBO Bettermann's cable trays and cable ladders in the base of a wind tower

With more than 100 years of experience under its belt, the company is able to offer comprehensive solutions for the entire tower, from the turbines to the foundation, and it has learned that each project will have its own particular conditions and requirements for technical equipment.

"OBO Bettermann's consultants and developers know exactly what is required and include important requirements with regard to type class, location, control technology, and safety into the planning and construction processes from the start," Boone said. "We have an excellently equipped testing center available, as well as a modern, flexible production facility. Here, not only are standard products tested, but so are special solutions for large-scale projects with exceptional requirements."

The capabilities OBO Bettermann offers for wind turbines include mea-

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suring and test systems, junction box systems for safe IP protection of electrical cabling, cable and pipe fastening systems for vibration-proof routing of lighting and auxiliary current circuits, metal and plastic pipe systems, interception and arrestor systems, surge protection energy technology, surge protection data and information technology, mounting systems to support high cable loads, and mesh cable tray systems.

As far as what it offers for the tower, OBO Bettermann provides rail systems to accept single to triple clamp clips, clamp clip systems for vibration-proof routing of power and data cables, vertical cable ladder systems with matching wall brackets, equipotential bonding systems to optimize the shield action of individual data cables and connect tower segments in a way that reduces the impact of lightning, and fire protection systems.

For the base of the tower, OBO Bettermann offers surge protection energy technology, surge protection data and information technology, metal and plastic cable fastening systems, a wiring duct to route cables in the control cabinet in an organized way, equipotential bonding systems, and earthing systems to connect the reinforcement with the equipotential bonding.

OBO Bettermann's earthing systems for the foundation of the tower include diagonal clamps for the connection of reinforcing bars and flat conductors, diagonal clamps with welded bolts to connect additional earthing cables, bitumen corrosion protection bandage to protect the earth entry at the transition point to the concrete, flat conductors made of galvanized or stainless steel, and stainless steel cross-connectors to safely attach the flat conductor to the crossing points.

Innovation has been the key to OBO Bettermann's success across the wide range of industries it serves, but this has been especially so in the wind energy industry where continuous development and technological advances are crucial.

"Our engineers and product development teams are consistently working to improve our existing products and develop new ideas and solutions to current and future challenges facing every installer and designer," Boone said. "Our challenges are usually met when assisting customers at the design and build level. Specially modified parts to meet designer specifications or to fit exact layout requirements are daily struggles for industry partners looking to source

OBO Bettermann's MCF lightning arrestors installed in a wind turbine

OBO Bettermann of North America

RePower wind towers in Portugal's Vale Grande Wind Farm

RePower wind towers in Portugal's Vale Grande Wind Farm

material. We're always up for the challenge of assisting these companies to find exactly what they are looking for."

OBO Bettermann parts are found in a large number of the most widely used wind tower designs, according to Boone, and the company offers O&M contractors replacement parts for maintenance or services should they need them, as well as alternatives for outdated parts or parts that were originally supplied by other manufacturers.

Looking to the future, Boone said he expects the wind energy industry to see a continued dedication to innovation from OBO Bettermann and its products.

"We have a positive outlook for the wind industry," Boone said. "It has proven itself to be a valuable tool in helping meet the energy production needs of this country, and many jobs and companies rely on the wind industry for work. It's even bigger now than just the positive impact it has on the environment. OBO Bettermann has benefited from the industry's expansion and continues to rely on the stability of this industry."

For more information, go to www.obous.com.