

# WIND TURBINES & COMPONENTS

## WIND TURBINES

### ACCIONA

ACCIONA Windpower's AW3000 platform is available with rotor diameters of 100, 116, 125, and 132 meters. Steel and concrete tower options ranging from 84 to 137.5 meters allow the AW3000 platform to be optimized for any site or market globally, says the company. ACCIONA Windpower has sold more than 6.7 GW of wind turbines to supply wind farms in 18 countries. [www.acciona.com](http://www.acciona.com)



### GOLDWIND

Goldwind's permanent magnet direct-drive (PMDD) turbine technology requires fewer components with only one moving part in the drivetrain, further reducing the lifetime maintenance costs of the turbine. The end result is less downtime, meaning an overall increase in turbine availability and increased megawatt hours. [www.goldwindamerica.com](http://www.goldwindamerica.com)



### GAMESA

With 21 years of experience and nearly 34 GW installed globally, Gamesa is an established leader in the wind industry. Combining wind turbine design, manufacture, and installation with O&M service, the company delivers end-to-end service for its customers. Gamesa's newest wind turbines include the G114 and G126-2.5 MW models. [www.gamesacorp.com](http://www.gamesacorp.com)



### SIEMENS

The SWT-2.3-120 turbine builds upon the achievements of the Siemens G2 platform. It is scaled and streamlined to deliver an industry leading capacity factor for medium to low wind conditions and incorporates innovative features, including a 120-meter rotor that supports 59-meter aeroelastically tailored blades, for an impressive 23 percent increase in swept area. [www.usa.siemens.com/wind](http://www.usa.siemens.com/wind)



## SUZLON

Part of Suzlon's 2.1-MW platform, the S111 and S97 wind turbines are known for doing more with less, says the company. Suzlon's S97-2.1 MW is the world's tallest all-steel hybrid tower wind turbine with a hub height of 120 meters above ground level. The S97 prototype has achieved a 35 percent plant load factor (PLF) over 12 months, higher than the average by 10 percent, says Suzlon. The S111-90 meter tubular WTG has a swept area of over 9,500 square meters. Both turbines help reduce the levelized cost of energy (LCOE) and make low wind regime sites viable.

[www.suzlon.com](http://www.suzlon.com)



## VESTAS

With more than 56,000 wind turbines delivered, Vestas continues to advance turbine technology, driving profitability, optimal performance, and lower LCOE. Vestas has delivered 75 GW of wind energy in 75 countries, over multiple trusted platforms that provide industry-leading reliability, serviceability, and availability. With 50 GW under service, Vestas is a world leader in wind energy, it says.

[www.vestas.com](http://www.vestas.com)



# WIND COMPONENTS

## ANTAIRA TECHNOLOGIES

Antaira Technologies, a leading developer and manufacturer of industrial device networking and communication product solutions for harsh environments, features the LMX-0804G-SFP, an 8-port industrial gigabit managed Ethernet switch designed with four 10/100/1000Tx RJ45 ports and four 100/1000 dual rate SFP slots for flexible fiber transmissions, so turbines can communicate over widely dispersed wind farm networks. Four built-in fiber ports allow for redundancy and failover via ring topologies, making them ideal for wind farm environments in which downtime cannot be afforded.

[www.antaira.com](http://www.antaira.com)



## BURNDY

The BURNDY BREAK-AWAY HYLUG is said to provide maximum field flexibility by allowing the installer (using the BREAK-AWAY feature) to easily convert a two-hole terminal to a one-hole terminal to best suit the specific application. They are rated to 90 degrees C, 600 volts to 35kV. With a slotted second stud, the BREAK-AWAY line of terminals can conform to various bus bar dimensions.

[www.burndy.com](http://www.burndy.com)



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## CAMERON WIRE & CABLE

Cameron Wire & Cable is a leading wind industry resource for durable high-performance cables, cable kits, custom hardware packages, and cable assemblies. The company works in partnership with customers to help maximize productivity and profitability through innovative cable solutions and services. [www.cameronwire.com](http://www.cameronwire.com)



## GENERAL CABLE

General Cable provides a broad range of traditional and next-generation renewable energy products for the terrestrial and offshore wind markets, from the nacelle and tower of the wind turbine to the step-up transformer and the collection system; from the substation to the power grid. [www.generalcable.com](http://www.generalcable.com)



## HELUKABEL

There are 8,000 different components in a wind turbine, but only one connects, transmits, and controls the entire platform—electrical cable. With as many as 50 different cable constructions within a system, proper selection of HELUWIND cable plays a critical role in overall wind power generation, says the company. [www.helukabel.com](http://www.helukabel.com)



## HYDAC

HYDAC offers customers a complete line of products for their wind turbine needs including contamination, pressure, and temperature sensors, gearbox lube system filters, accumulators, offline filters including skids and carts, cable clamps, and replacement filter elements for all major wind turbine brands. [www.hydac-na.com](http://www.hydac-na.com)



## LM WIND POWER

LM Wind Power is the world's leading independent supplier of wind turbine blades, according to the company. Since 1978, the company has produced more than 175,000 blades ranging from five to 73.5 meters. Respected for their superior design and technology, LM Wind Power blades power almost one in four turbines in the world. [www.lmwindpower.com](http://www.lmwindpower.com)



## MANKIEWICZ COATINGS

Mankiewicz is a leading manufacturer of coatings for a wide range of industrial applications. ALEXIT BladeRep 2-component, polyurethane-based products for wind turbine blades are designed for long-term protection against extreme environmental stress. BladeRep has been successfully tested under real market conditions and fulfilled requirements of the wind industry for more than 10 years. [www.mankiewicz.com](http://www.mankiewicz.com)



## MIDPOINT BEARING

Midpoint Bearing provides off-the-shelf solutions for wind turbine gearbox, generator, and main shaft applications. With one of the largest turbine related inventories in the U.S., the company is able to fill customer needs in a timely manner.  
[www.midpointbearing.com](http://www.midpointbearing.com)



## PHOENIX CONTACT

Phoenix Contact's new TC mGuard devices leverage cellular networks, such as Verizon and AT&T, to provide secure remote communications wherever a wired connection is not possible. The TC mGuard meets the demand for remote maintenance and secure supervisory control and data acquisition (SCADA), two growing needs in today's connected wind farms. For remote maintenance and support, the TC mGuard connects through Phoenix Contact's free mGuard Secure Cloud service. This gives turbine manufacturers access to service their equipment easily and helps avoid heavy travel expenses.



[www.phoenixcontact.com/mguard](http://www.phoenixcontact.com/mguard)

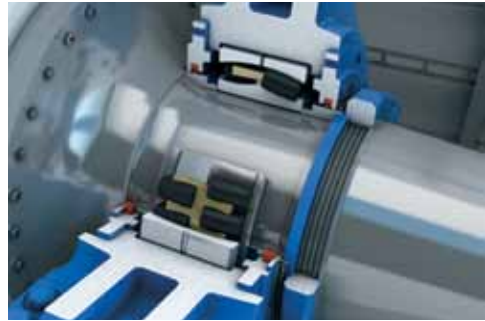
## SIBA FUSES

SIBA has a new patented specific melting element with fast acting striker system and thermal limiter, with "SSK" fuse technology allowing for protection of transformers used in wind applications utilizing disconnect switch replacing circuit breakers. SIBA specifically developed simple mounting "SSK" fuses with low minimum breaking current and higher interrupting current ratings that limit arc energy, reduce short circuit currents, and lower power losses.  
[www.siba-fuses.us](http://www.siba-fuses.us)



## SKF

SKF has introduced HRS seals, made especially for the harsh conditions that wind turbines endure. Made from G-ECOPUR material, providing extended service life, their high performance profile features axial grooves to improve static sealing, while a flexible sealing lip design helps cope with misalignments. Single-packed split seals are available for easy up-tower use.  
[www.skf.com](http://www.skf.com)



## SOUTHWIRE

Southwire can provide the cable needs for wind farm installations, from the tower to the grid. The company says it has set the industry standard for flexible DLO cable, WTC, Aluminum Downtowner, and Medium Voltage Cables. The company's cable is used in some of the world's largest wind farm installations. Southwire has specialized support from an engineering perspective to assist customers with all their wind farm cable needs.  
[www.southwire.com](http://www.southwire.com)



## TE CONNECTIVITY

TE Connectivity (TE) provides terminating solutions for MV power cables in the nacelle: MV 3C flex cables connect transformers to disconnect-switches. These electrically self-contained cables, when broken out into single conductors, must be metallically shielded to eliminate the risk of touch potential. They are stress controlled, sealed from moisture, and mechanically protected.  
[www.te.com/energy](http://www.te.com/energy)



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## TWR LIGHTING

TWR Lighting Inc. has introduced the L550-864-G LED Medium Intensity Red Synchronized Obstruction Light for reliable night-time marking of wind turbines. The L550-864-G is a compact, stand-alone, maintenance-free unit that is said to be easy to install. The L550-864-G features an integrated photocell, power supply, and monitoring, along with internal flash synchronization. [www.twrlighting.com](http://www.twrlighting.com)



## WINERGY DRIVE SYSTEMS

Winergy is a leading manufacturer of gearboxes and couplings for drive trains of wind turbines up to 6.5 MW. This is complemented by a broad service portfolio. Production and service facilities are located in Germany, China, India, and the U.S. [www.winergy-group.com](http://www.winergy-group.com)



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Malika Grayson, Heather Sauder, Elena Nansen  
(Front) Rachael Fabiny



**WoWE Lunch and Q&A with Andrea Jung**  
Just before WINDPOWER 2015 WoWE partnered  
with GE to host a special lunch with Andrea Jung,  
CEO of Grameen America, former CEO of Avon,  
and member of the GE Board of Directors

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