Ameridrives

Bauer Gear Motor

Bibby Turboflex

Boston Gear

Delroyd Worm Gear

Formsprag Clutch

Guardian Couplings

Huco

Industrial Clutch

Inertia Dynamics

Kilian

Lamiflex Couplings

Marland Clutch

Matrix

Nuttall Gear

Stieber Clutch

Stromag

Svendborg Brakes

TB Wood's

Twiflex

Warner Electric

Warner Linear

Wichita Clutch

Power Transmission Solutions for Wind Turbines

Altra® Industrial Motion

The Power of Experience

Power Transmission Solutions for Wind Turbines

The time is right for wind power. Turbines are becoming more reliable. Studies are being conducted to improve energy production at wind farms around the world. Researchers are working on weather models to more accurately predict power generated by wind.

Wind power is becoming one of the largest sources of new electricity generation. Since it became a viable energy resource 20 years ago, wind energy has emerged as a leading renewable technology. In the first half of 2011, an additional 18,400 MW of wind power went online, bringing the total worldwide capacity to 215,000 MW.

As the world's demand for wind power grows, the infrastructure and equipment necessary to produce and distribute it continues to come under increasing pressure to perform.

That is where Altra Wind Technology can make a difference.

The brands of Altra are leaders in providing innovative power transmission product solutions for wind turbines and have extensive experience in custom product solutions for a variety of wind power applications. Altra Wind has manufacturing facilities in the US, Europe and China, that provide support to wind turbine OEMs all over the world.

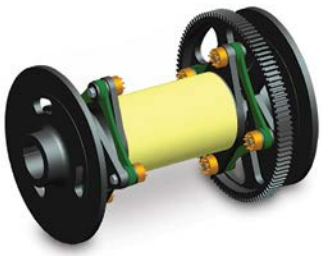
Altra products used in wind turbine applications help avoid costly downtime, assure safe operations and consistent production output.

Shaft locking devices

Ameridrives Couplings offers Ameriloc® mechanical and hydraulic shaft locking devices that are engineered to provide years of trouble-free service.

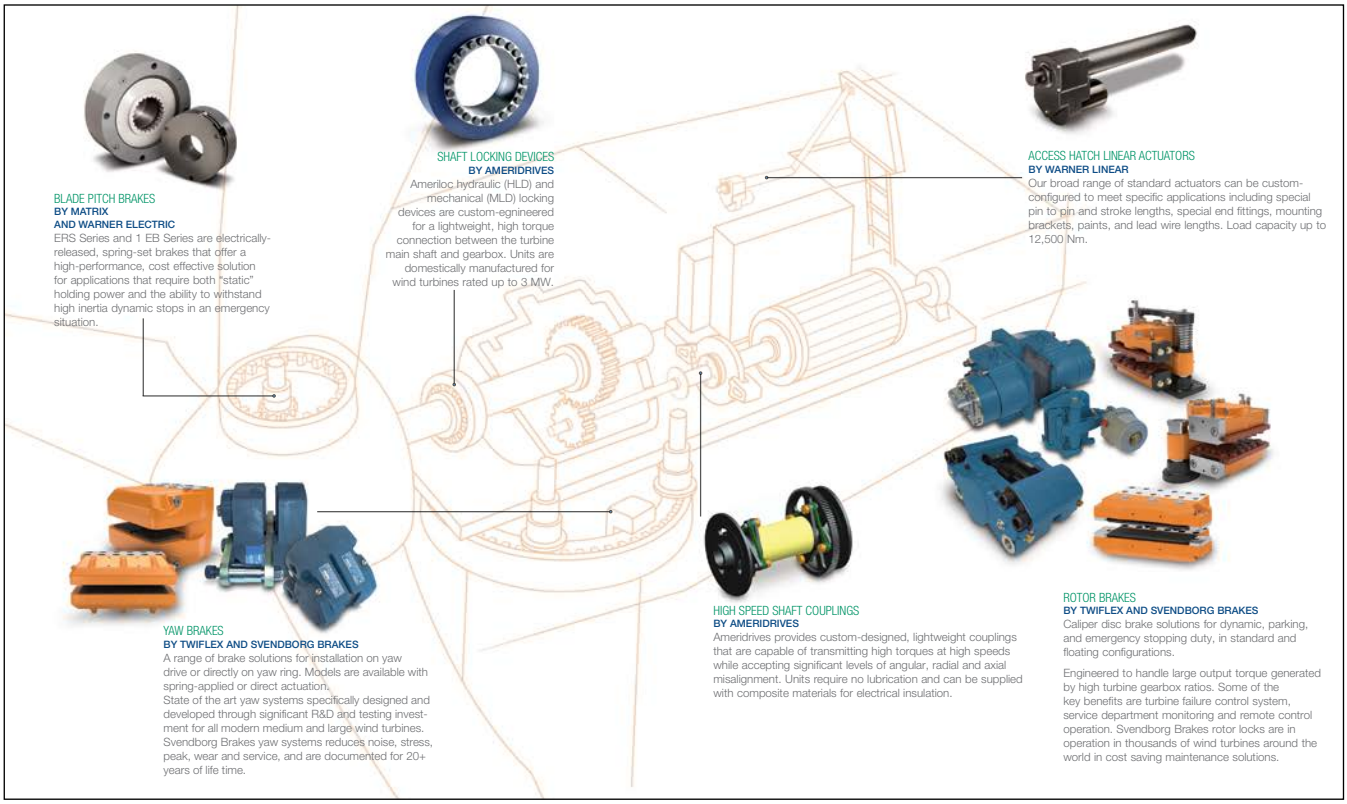
The biggest advantage to the Ameriloc HLD (Hydraulic Locking Devices) is how much time can be saved during installation. Whereas mechanical locking devices can take several hours, the HLD, especially larger diameters, such as 20.8 in. (530 mm), can be tensioned within only a few minutes. The hydraulic pump required for assembly can be a stationary unit, but the use of a hydraulic hand pump is also possible for tensioning at hard-to-reach places such as the turret of a wind turbine.

With the MLD (Mechanical Locking Device) units there's no need for keyways or splines. These devices provide unlimited shaft positioning and feature zero backlash, reduced shaft stress, and high contact pressure for greater torque. The MLD series can fit into smaller installations and can be assembled using standard tools.



High speed shaft couplings

Ameridrives provides custom-designed, lightweight couplings that are capable of transmitting high torques at high speeds while accepting significant levels of angular, radial and axial misalignment. Units require no lubrication and can be supplied with composite materials for electrical insulation.



Linear actuators

A broad range of standard actuators can be custom-configured to meet specific turbine applications including special pin to pin and stroke lengths, special end fittings, mounting brackets, paints and lead wire lengths.

These electric actuators have a number of advantages over hydraulic actuators in wind turbine designs. They meet performance requirements with significantly reduced weight, which helps to improve efficiency. They are also smaller than their hydraulic counterparts, enabling overall space requirements to be optimized. Installation is much simpler, and ongoing maintenance requirements dramatically reduced – a key issue when wind farms are located offshore.

A wide array of braking solutions

Wind turbine structures are growing bigger, which places greater loads on the mechanical power transmission components in general, especially the braking systems.

Twiflex offers a variety of caliper disc rotor brake solutions which provide dynamic, parking, and emergency stopping functions. Twiflex also provides brakes for installation on yaw drives or directly on the yaw ring. Models are available with spring-applied or direct actuation.

Blade pitch brake solutions are available from both Matrix International and Warner Electric to meet specific performance requirements.

About Altra Industrial Motion

Altra is a leading global designer and manufacturer of quality power transmission and motion control products utilized on a wide variety of industrial drivetrain applications. Altra clutches and brakes, couplings, gearing and PT component product lines are marketed under the industries most well known manufacturing brands. Each brand is committed to the guiding principles of operational excellence, continuous improvement and customer satisfaction. Highly-engineered Altra solutions are sold in over 70 countries and utilized in a variety of major industrial markets, including food processing, material handling, packaging machinery, mining, energy, automotive, primary metals, turf and garden and many others.

Altra's leading brands include Ameridrives, Bauer Gear Motor, Bibby Turboflex, Boston Gear, Delroyd Worm Gear, Formsprag Clutch, Guardian Couplings, Huco, Industrial Clutch, Inertia Dynamics, Kilian, Lamiflex Couplings, Marland Clutch, Matrix, Nuttall Gear, Stieber Clutch, Stromag, Svendborg Brakes, TB Wood's, Twiflex, Warner Electric, Warner Linear and Wichita Clutch.

CHECK OUT

www.AltraWind.com

to view a full array of power transmission solutions available from the brands of Altra Industrial Motion

Altra® Industrial Motion

The Power of Experience

449 Gardner Street
South Beloit, IL 61080
815-389-3771
815-389-2582 (fax)
www.AltraMotion.com

Asia Pacific

For a list of our AP sales offices:
www.AltraMotion.com/ContactUs

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