

Reliability – Made by Schaeffler

Cost-effective wind turbines require reliable components. We offer the right solution for every bearing position and a comprehensive concept which further increases the reliability of rolling bearings in wind turbines – the **Schaeffler Wind Power Standard (WPOS)**.

The Schaeffler Wind Power Standard (WPOS)

- ... is our quality standard for all products and processes relevant to the wind power sector.
- ... ensures the highest possible standard of quality and reliability, worldwide.
- ... indicates all bearings that have been developed and manufactured according to this new standard.



We have been a development partner for the sector for 30 years. Use our engineering expertise!

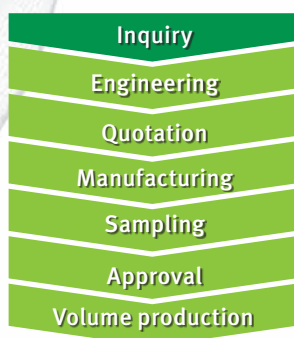
Schaeffler Technologies AG & Co. KG
www.schaeffler.de/windpower

SCHAEFFLER



FAG

The Schaeffler Wind Power Standard (WPOS)



Product development process according to WPOS

Processes specific to wind power applications

We work closely with our customers and suppliers throughout the entire process chain to ensure our high standards are met.

- Coordinated, transparent processes
- Defined change management structure
- Strict monitoring of quality (100% inspection of all characteristics critical to function)
- Comprehensive documentation and product information
- Selective supplier development

Products specific to wind power applications

In conjunction with our customers, we develop the best solution for every bearing position. Our FAG and INA products developed according to the Schaeffler Wind Power Standard receive the WPOS designation.

- Optimal design with state-of-the-art calculation and simulation programs
- Products specifically designed for the operating conditions in wind turbines

For example, rolling bearings with Durotect® B, Schaeffler's standard for black oxide finishing for bearings for wind turbines. This layer, which measures only between 0.4 and 2 µm in thickness, reduces the risk of white etching cracks and the damage caused by slippage, improves run-in behavior, and offers protection against corrosion. Or our cylindrical roller bearings with optimized rib contact (TB design). They are low friction and can support much higher axial loads than other bearings available on the market. They are certainly an interesting design alternative if you are considering downsizing and increasing energy efficiency.



Highest possible quality and reliability ensured due to 100% inspections of all characteristics critical to function



FAG radial spherical roller bearings E1 X-life WPOS: Specially developed for the requirements of rotor bearing supports

Reliability – Made by Schaeffler offers even more

Realistic tests on Schaeffler's ASTRAIOS

The world's largest, most up-to-date and most powerful large-size bearing test rig enables large-size bearings of up to 15 tons and with outside diameters up to 3.5 meters to be tested. Astraios simulates the real loads and moments that occur in a wind turbine. This means we are making a major contribution to shortening development times for wind turbines as well as making the design process more reliable and increasing the cost-effectiveness and safety of these turbines.

High equipment availability due to condition monitoring

We offer products and services for all aspects of condition monitoring, e.g. remote monitoring and diagnosis, offline measurements, endoscopy, thermography and speed measurement. This means the costs for maintenance activities can be reduced and the availability of wind turbines can be increased.



Schaeffler offers unique testing facilities with its ASTRAIOS large-size bearing test rig