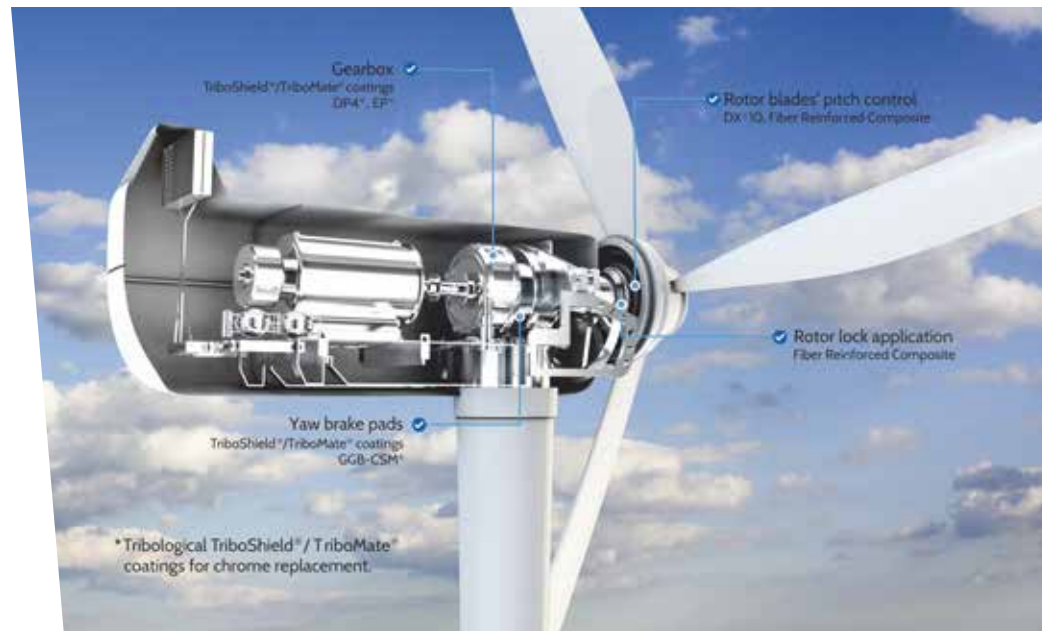


GGB Solutions for Wind Turbines

Wind turbines are key to renewable energy generation, converting wind into electricity through rotor blades and a drivetrain system. Design engineers face several challenges when creating wind turbines, including managing heavy loads, constant vibrations, extreme weather conditions, and ensuring long service life with minimal maintenance.

Application Challenges

- Heavy axial and radial loads
- Harsh operating environments
- Constant vibration & oscillation
- Expensive maintenance
- Misalignment tolerance
- Friction management
- Excessive noise
- Long service time with minimal maintenance



GGB Product Benefits



MAINTENANCE-FREE

GGB® bearings are self-lubricating, making them ideal for applications demanding extended bearing life without the need for continuous maintenance, as well as under operating conditions with inadequate or no lubrication.



SPACE SAVING

A slim, compact, one-piece design provides notable space and weight reductions, simplifying installation, reducing system costs, and minimizing the risk of potential damage during the installation process.



LOWER SYSTEM COST

Reduce ownership expenses with GGB's solutions, offering prolonged service life and minimized maintenance and lubrication requirements.



EXTENDED SERVICE LIFE

GGB bearings provide dependable performance under substantial loads and intense stress, enduring challenging and corrosive environments to prolong the service life of various applications.







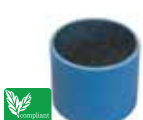











ENVIRONMENTAL

Greaseless, lead-free GGB bearings comply with increasingly stringent environmental regulations such as the RoHS and WEEE directives restricting the use of hazardous substances in certain types of electrical and electronic equipment.



Recommended Products

PRODUCT	ADVANTAGES	MORE INFORMATION
DP4® 	DP4® offers low friction and good wear resistance in both dry and lubricated applications. Suitable for linear, oscillating and rotating movements.	
DX®10 	DX®10 is a lead-free, heavy-duty metal-polymer bearing material with exceptional fatigue strength and wear performance. It is ideal for heavy-duty and harsh environments, offering excellent chemical and erosion resistance for reliable operation under demanding conditions.	
HSG 	HSG is a self-lubricating bearing material with high static load capacity, excellent shock resistance, and superior friction and wear properties.	
HPMB® 	HPMB® is a high-precision, fiber-reinforced composite bearing material designed for demanding applications. Pre-machined bearings are available for immediate installation, offering low friction with negligible stick-slip.	
EP® 	EP® provides good bearing performance in dry as well as lubricated or marginally lubricated working conditions. Good choice for medium working conditions compared to other engineered plastics materials.	
GGB-CSM® 	GGB-CSM® self-lubricating metal bearings are produced using powder metallurgy, featuring solid lubricants like graphite and MoS2 homogeneously distributed in a metallic matrix. They offer high load capacity, temperature resistance up to 600°C, and are available in corrosion-resistant, lead-free alloys.	
TriboShield® 	With the TriboShield® technology, GGB can reduce the friction and extend the durability of any complex shaped part by coating the substrate with our special designed low friction paints.	
TriboMate® 	Our TriboMate® technology is the pairing of a GGB bearing with a GGB polymer coating. The technology reduces significantly the static and dynamic friction, improves start and stop behaviors and increases load carrying capability	

Stronger. Together.

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