

Motors and Gearboxes for Wind Turbines

Durable
Environmentally Friendly
Low Maintenance





Reliability in Many Areas

ABM develops and manufactures innovative drive solutions of highest quality. As a single source manufacturer ABM can supply all drive components from motor to gearbox; these components are already being fine-tuned during the development phase. This way customized drive solutions for notable OEM's of overhead cranes, textile machines, pallet trucks, biomass heating systems – and recently also for OEM's for wind turbines are being developed.

Innovation, durability, partnership and great flexibility are the guiding principle for our actions. 670 team members develop and manufacture over 300,000 drives annually. Six international subsidiaries and partners in all important industrialized countries guarantee a close contact to our customers around the world.

When Flexibility counts

If your demands are more than what standard components provide, you arrived at the right address with ABM Greiffenberger. We are not guided by our product program in a partnership but follow your wishes and goals. Thereby we are exceptionally flexible – even if special requirements are requested.

From One Casting

This motto can be taken literally: Aluminum housings for motors and gearboxes are manufactured in our own die cast operation. Even metaphorically we provide solutions from one casting: a complete drive solution that will not only satisfy you but also your customers.





Pitch Drives

Pitch drives from ABM Greiffenberger are extremely robust and durable – exactly how the demanding application requires them to be. The combination of AC induction motor, multi-stage planetary gearbox and electro-magnetic brake results in a systems solution where all components have been fine-tuned. The outcome: A perfect drive system.



Yaw Drives

Highest reliability in a compact package: In summary this is what distinguishes ABM Yaw Drives. Even exposed to the toughest environment they perform steady over the complete duration of 20 years and even more.



Motors

For OEMs and systems suppliers that engineer their own complete solutions we provide powerful and reliable AC induction motors. Vertical integration of our manufacturing and superior production standards guarantees a long lifespan.

Engineering with Team Players

Close cooperation with
ABM Greiffenberger offers
numerous benefits for
wind turbine OEM's and
operators of wind farms



Let's Successfully Cooperate!

If you are selecting a drive system for a wind turbine you have one primary goal: During operation you want them to be noticed as little as possible. These drives should run undisturbed – as all other components – for 20 years and longer with a minimum of maintenance.

This was exactly one of the major development goals for our drive systems for wind turbines. Based on these systems we engineer for and with you tailor-made system solutions.

You can look forward to a successful cooperation with a team of dedicated developers, engineers and product specialists. We like to develop and configure customer-oriented solutions. But we really thrive if the requirements go beyond the usual. We do not only have the competence for such applications but also powerful configuration software such as KISSOFT and the latest CAD programs. FEM analysis as validation of development results are a matter of course and such are customer specific tests in our well equipped test room.

We configure your drive solutions according your individual requirements and this applies not only to output, speed and gear ratios. We are open to your recommendations even for design and protective finish. So for example drives with right-angle gearboxes are possible and offshore-versions can be delivered with saltwater-proof paint.

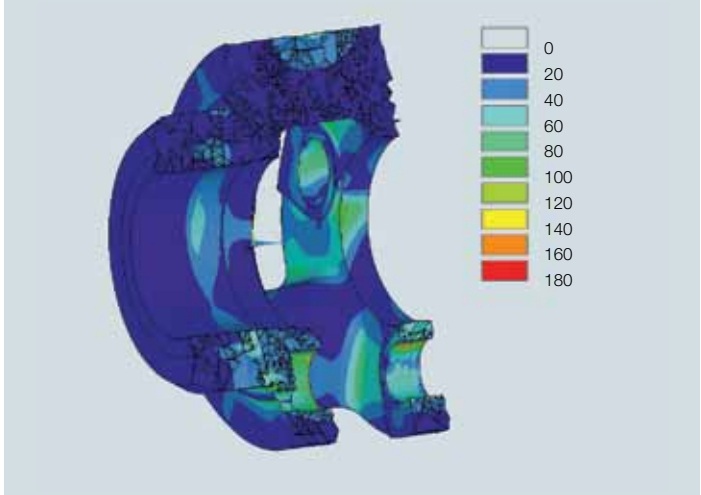
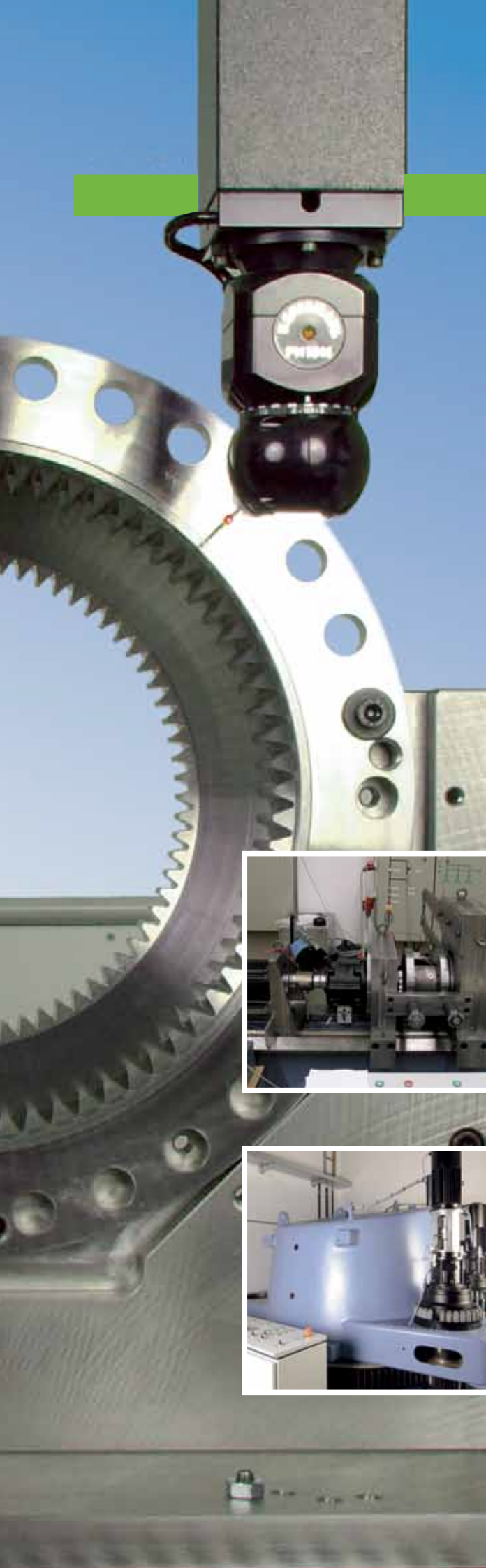


Developed for the Toughest Demands

We have comprehensive experience with the development of electrical drives with extreme demands. On crane drives – we built in 25 years more than 500,000 units – high capacity and safety requirements are of utmost importance. On pallet trucks it is a tough environment and frequent reversing, on textile machines extreme dynamic operation, e.g. for winders and bobbins. For our new program for the wind energy technology we emphasized efficiency as well as durability in a harsh environment.

Yaw and pitch drives with outstanding efficiency set the premise for maximum recovery of this environmentally friendly power generating technology. High grade, perfectly tuned components mostly manufactured in-house as well as robust roller bearings guarantee maximum life. High torsion resistance guarantees that even with high wind gusts the exact position is maintained.

Our comprehensive drive program for wind turbines excels with silent running, high overload capacity and best efficiency. The drives meet the tough demands of wind turbine OEM's on reliability and durability. They are designed for easy oil changes even in adverse conditions at the high altitudes of a wind turbine tower and they operate in temperatures down to -40°C .



Quality Starts with the Design

ABM Greiffenberger is convinced that quality starts already at the time of establishing specifications and developing products. Hence the close cooperation already during preparation of product specification between our engineers and customers. For development the latest configuration software and CAD programs are being applied whose results are validated with FEM analysis. Even single gears of the gearbox are being designed for the harsh operating environment and long service life with special gearing software. This applies to planetary gears as well as case-hardened and subsequently hard-machined pinions. Furthermore, dynamometers are available for long-term test that will be conducted in close consultation with the customers.

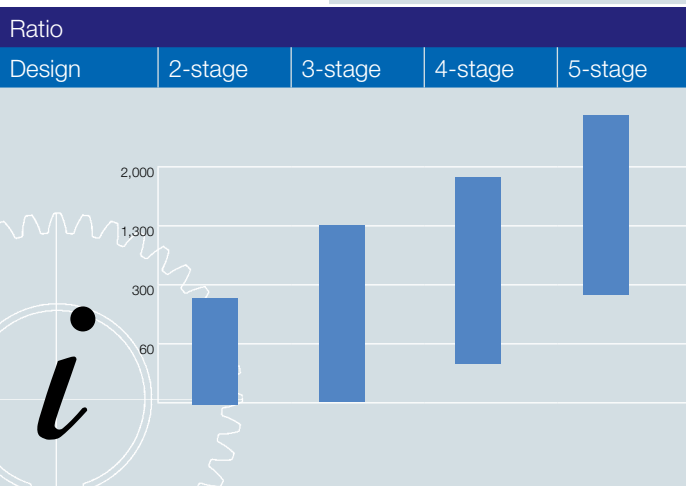
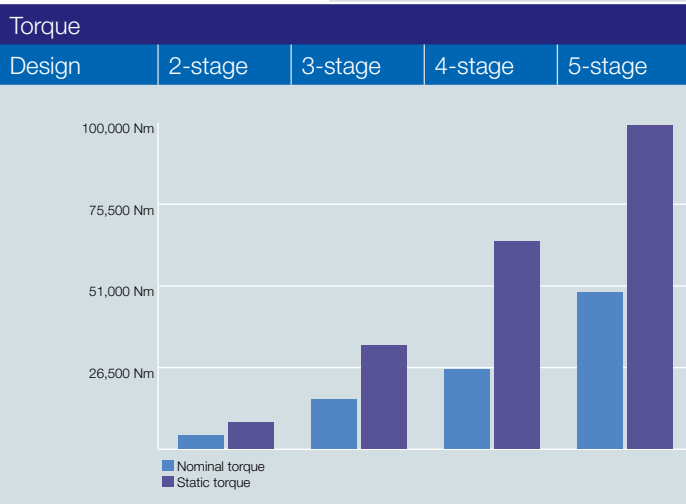
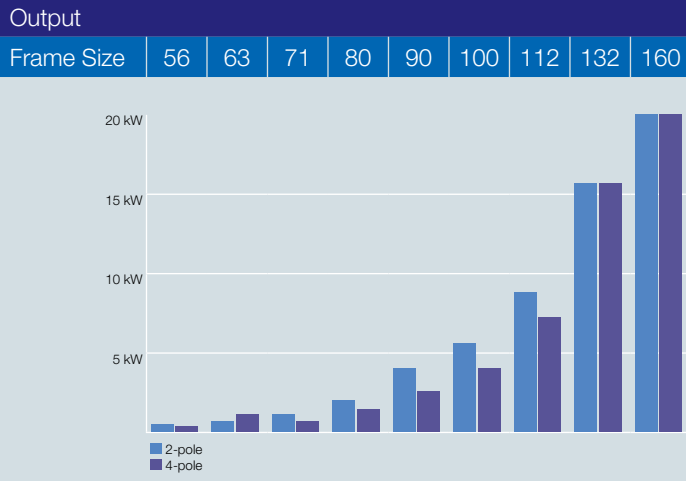
In manufacturing guarantee modern machine tools and real-time process controls best quality. Measuring machines such as a 3D-Coordinate Measuring Machine for a continuous inspection of manufactured components such as ring gears and housings are available.





Motor Data

Motor Type	AC induction motor
Output	2.2 kW up to 22 kW
Output Speed [rpm]	Per customer specification
Power Supply	24 V up to 575 V
Protection Class	IP 55
Ventilation	Integrated or auxiliary fan cooling
Brake	Electro-magnetic
Motor Protection	Temperature sensor Speed sensor available upon request
Hook-Up	Per customer specification



Gearbox Data

Gearbox Type	2 to 5 stage planetary gearbox
Gear Ratio [i]	100 to 2,000
Nominal Output Torque	2,000 Nm to 50,000 Nm
Static Output Torque	4,000 Nm to 100,000 Nm
Motor Interface	IEC standard

We drive the world

A dense network of international subsidiaries and sales offices in all major industrial countries ensure close contact with our customers around the world – and guarantee an excellent standard of service.

Kindly contact us for further detailed information.

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