



**YAW & PITCH
DRIVES FOR
WTG**

Comer Industries is a global leader in the design and production of advanced engineering systems and mechatronic solutions for power transmissions, supplied to major manufacturers of agricultural equipment, industrial machinery and of renewable energy applications worldwide.

Founded in 1970, the company has progressively enlarged its offer of transmissions for farm machinery with mechatronic products, to ensure customers added value and competitive advantages.

Comer Industries has 6 operating units with 6 production facilities in the provinces of Reggio Emilia, Mantua and Matera, and in Shaoxing, China. Comer Industries is a force in the global marketplace and has foreign subsidiaries in France, Germany, United Kingdom, United States and China.

In 2003 the company adopted Lean Thinking in its organization and in 2006 integrated it with Six Sigma tools in order to improve overall efficiency.

Comer Industries Quality Management System is certified according to ISO 9001:2000 with reference to all operating units. The Planetary Drives operating unit in Cavriago (RE) obtained UNI EN ISO 14001:2004 environmental certification in 2006.

In 2009, Comer Industries adopted the Comer Production System (CPS), an integrated system of methodologies and standards including an intensive program of Kaizen workshops encouraging people to support continuous improvement at all corporate levels and in all areas.

“We meet our customers’ demand for partnership, innovation capability and know-how.”



Cavriago
plant



Matera
plant

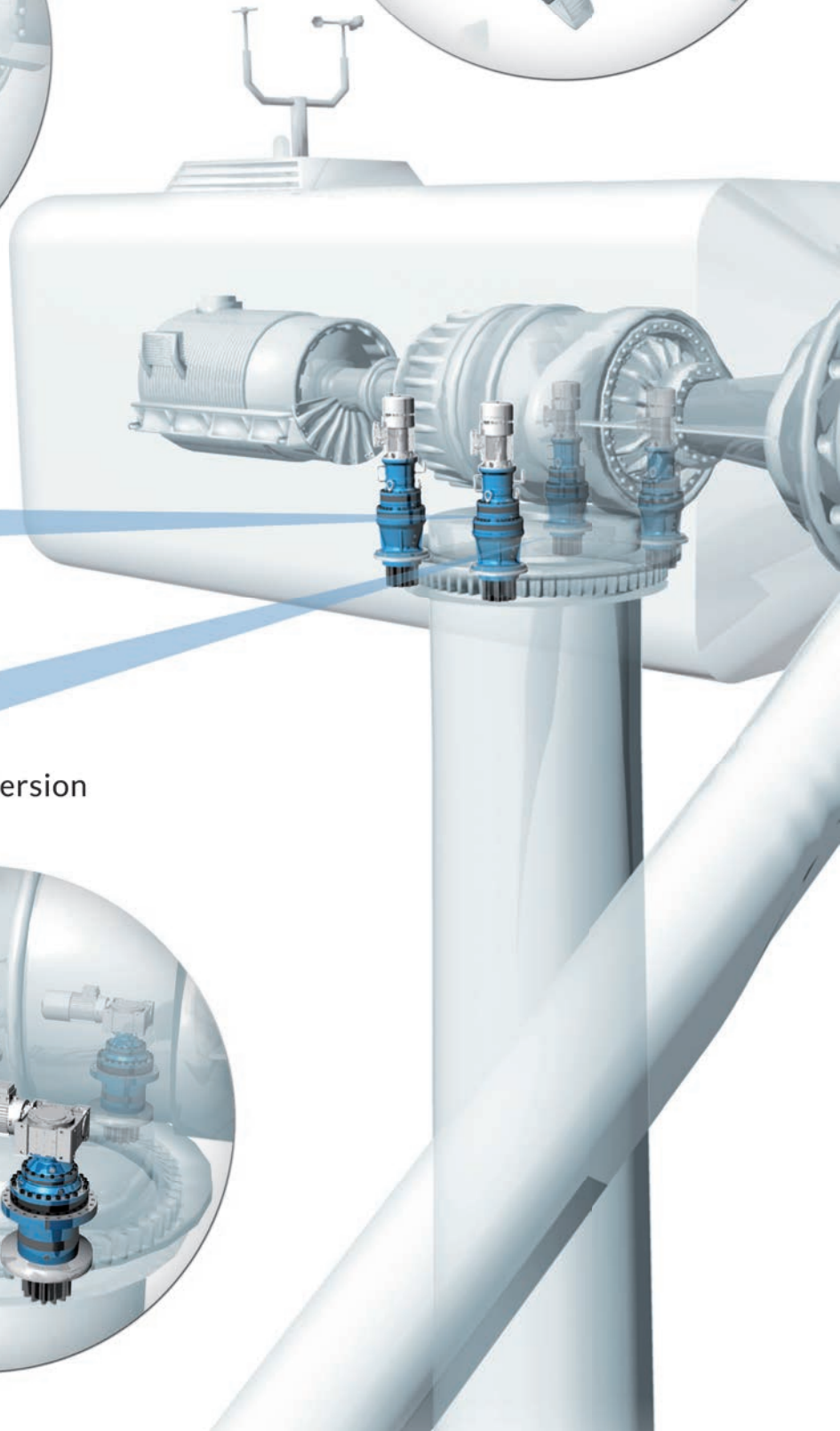


Reggiolo
Mechatronics
Research Center



Shaoxing
plant

Inline version

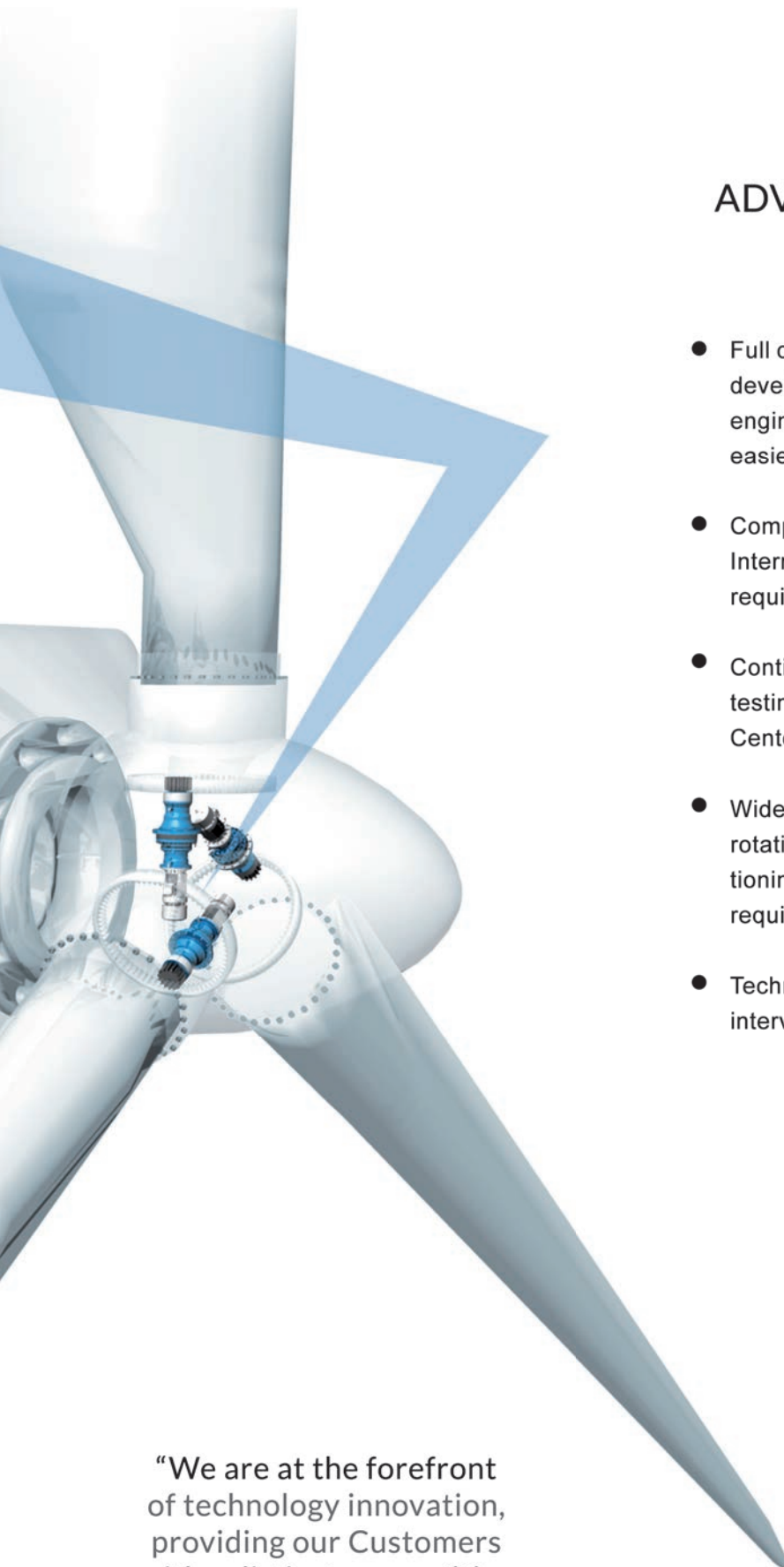


Angular version



ADVANTAGES

- Full commitment to meet Customer's specification through development of tailored solutions in synergy and co-engineering, to ensure better sizing of components and easier installation on the machine
- Components' calculations compliance to the latest International Standards and certification bodies requirements
- Continuous product development experimentation and testing in Comer Industries' Mechatronics Research Center
- Wide and versatile range of planetary drives for nacelles rotation and orientation (yaw drive) as well as blades positioning (pitch drive) are engineered to meet Customer's requirements for wind generators up to 10 MW and more
- Technical features allowing extended maintenance interval and reduced downtime



"We are at the forefront of technology innovation, providing our Customers with a distinct competitive advantage"

SLEWING DRIVES

Planetary Gear Drive	i	Nominal torque [Nm]	Static torque [Nm]
PG 700	100 - 300	7000	20000
PG 950	100 - 300	10000	22000
PG 1600	100 - 2500	17000	45000
PG 1900	100 - 2500	19000	55000
PG 3000	100 - 2500	28000	80000
PG 3500	100 - 2500	35000	100000
PG 4200	600 - 2500	42000	120000
PG 6500	600 - 2500	70000	180000



INPUT OPTIONS

Inline version



Angular version



Combined version with worm gearbox



OUTPUT OPTIONS

LFP/E



LNP



LNPE



DSP/E



“We offer a continuous product innovation process to answer the demand for greater turbine performances and control”.

Comer Industries combines application know-how, cutting edge technology, professional competence with a strong commitment to research and ongoing improvement to grant the world class in power transmission solutions to global turbine manufacturers.

Our range of planetary drives for nacelles rotation and orientation (yaw drive) as well as blades positioning (pitch drive) is suitable for wind generators up to 10 MW and more, in order to meet customers' requirements.

This kinematics guarantees a compact design, allowing the turbine to be installed in severe environmental conditions such as desert areas and off shores. As a result of an extensive engineering design integration, the PG1904 has benefited with a stronger, lighter weight approach with fewer parts while at the same time increasing the power to density ratio when compared to equivalent conventional sizes; moreover, higher power to density ratio is guaranteed.



MANUFACTURING FOOTPRINT



- Manufacturing capabilities currently concentrated in Italy
- Shaoxing (China) plant operating since 2008
- Our Strategy: manufacturing where we can best serve our customers
- Competitive worldwide sourcing

MECHATRONICS RESEARCH CENTER

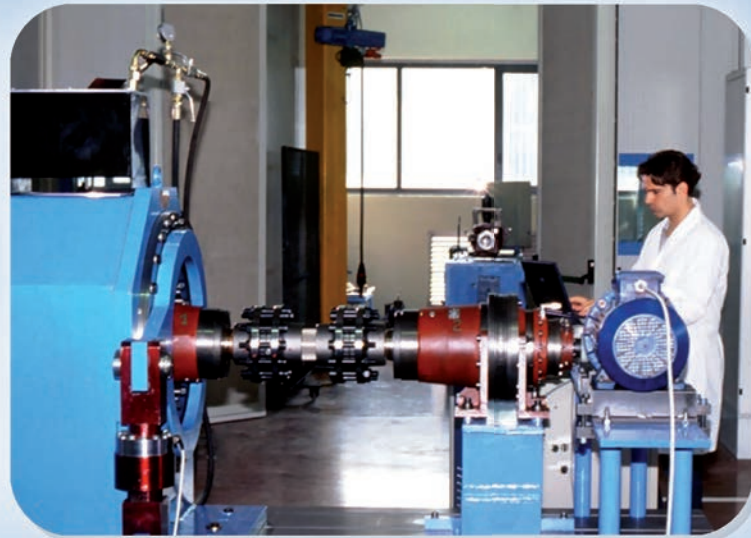
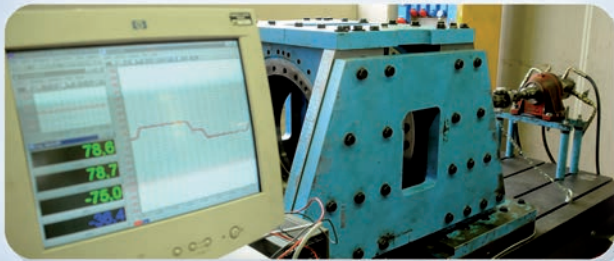
Applied research and product innovation

Comer Industries product lines are developed, tested and approved in Mechatronics Research Center in Reggiolo (RE) for applied research and product innovation.

With an indoor area of 1500 m², it operates with eleven completely soundproofed test rooms equipped with cutting edge devices and simulators to reproduce real operating conditions of transmission.

Typical tests performed concern approval for commercial components, functionality, stability, specs identification, endurance, crashing, structure and fatigue; moreover, temperature tests under load, field tests, benchmarking and new products homologation are carried out in Mechatronic Research Center.

Wind generators manufacturers can rely on our advanced engineering expertise, which allows close collaboration and total involvement of our designers from the very first development stages of our new systems, in a co-engineering relationship with our customers.





CI ADV BUS Edico 09/14 (ENG) - Photo credits pages 6,7: Erik Isakson, Tetra Images, Gettyimages - Coordination, Graphic Design and Layout: Marketing Department, Comer Industries



42046 Reggiolo (RE) - Italy - via Magellano, 27
Tel. 0039 0522 974111 Fax 0039 0522 973249
info@comerindustries.com - www.comerindustries.com