

LM Wind Power Blades – Facts

LM Wind Power Blades – in brief

- The world's leading supplier of wind turbine blades
- Has manufactured more than 140,600 blades corresponding to a capacity of more than 49 GW and each year contributing to saving nature more than 83 million tons of CO₂
- More than 30 global and national customers, including 5 of the world's 10 largest wind turbine manufacturers in 2010
- 12 production facilities on 3 continents
- Total number of blades produced in 2010: 10,382
- Sales in 2010 in MW equivalent 5605 MW
- Number of employees end 2010 5,826
- Turnover in 2010 EUR 727 m

Milestones

- 1940 Lunderskov Møbelfabrik (*Lunderskov furniture factory*) founded with a view to manufacture of wooden furniture
- 1952 The possibilities of commercial exploitation of glass fiber technology are investigated
The name is later changed to LM Glasfiber
- 1978 LM Glasfiber starts manufacturing wind turbine blades in Denmark
- 1993 First manufacturing facility outside Denmark established in India
- 1994 Production established in Spain and Aeroconstruct in Germany acquired
- 1999 Production facility established in North Dakota, USA
- 1999 Rotorline in the Netherlands acquired
- 2001 The LM Glasfiber Group acquired by certain limited partnerships, for which Doughty Hanson & Co Limited acts as general partner
- 2001 Production facility opened in Tianjin, China
- 2004 LM launches the world's largest wind turbine blade, the LM 61.5 P
- 2006 Production facility opened in Québec, Canada
- 2006 LM Glasfiber inaugurates the world's most advanced wind tunnel for testing of blade aerodynamics in Lunderskov, Denmark.
- 2006 Expansion of production facilities in China and USA
- 2006 Establishment of Technology Center in Bangalore, India
- 2007 Global Business Center opened in Amsterdam, the Netherlands
- 2007 New factory in Spain in the town of Castellón
- 2007 New production facility established in the Xinjiang province, China in Urumqi
- 2007 New production facility opened in Dabaspur, India
- 2008 New production facility established in the USA in Arkansas

- 2009 New production facility established in Goleniów, Poland
- 2009 Consolidation of European organization
- 2009 New production facility opened in Qin Huang Dao, China
- 2010 Change of name from LM Glasfiber to LM Wind Power Blades
- 2010 Fourth Chinese blade production facility opened in Jiangyin
- 2010 Sales office opened in Seoul, South Korea
- 2010 South America Sales Office opened in Brazil

LM Wind Power Blades' competitive edge

Leading technology and know how

- LM Wind Power has manufactured more than 140,600 blades in the course of more than 30 years
- We have at our disposal both the widest and the most in-depth specialist knowledge within fields ranging from materials and process technology, aerodynamics, calculation and simulation to advanced production and testing of blades
- By means of our calculation, simulation, design and test tools, we are able to offer a short time-to-market and optimization of the blades' aerodynamics and structure
- We have at our disposal a unique process technology, which enables us to make the optimum choice of materials and achieve a high level of utilization of the materials' properties
- LM Wind Power is accredited for blade testing and has at its disposal a large internal testing capacity: LM blades are tested both statically and dynamically to ensure the highest durability and quality

Global capacity and supply chain

- Global production facilities in the major wind energy markets – 11 locations in 7 countries (Denmark, Spain, USA, Canada, India, China and Poland)
- Through our global presence, we minimize transport and logistics costs, shorten delivery time, reduce cash flow requirements, and offer delivery to our global customers in local currency
- We collaborate with our customers about planning of global capacity and offer them local 'first mover' advantages on new markets and local job creation

Economies of scale

- As the world's largest blade manufacturer, we employ our high degree of specialization to reap the benefits of economies of scale within R&D, procurement and global production.

Customized product offerings and supply system

- We work closely with our customers in an integrated process to develop new products, and we apply our specialist knowledge to design rotor solutions with a high yield adapted to our customers' wind turbines and different wind and climatic conditions.

Value-adding blade features

LM Wind Power offers a series of unique features that improve the blades' operational reliability and output:

- High-performance and load-optimized blade profiles that ensure low-cost utilization of wind energy
- Vortex generators that increase annual energy production
- The safest and best documented lightning protection system on the market – with many optional functions
- Durable and matte blade surface with minimal reflection of sunlight
- Low-noise tip and trailing edge design
- Pre-bending that facilitates weight reduction and increased energy production
- Blade monitoring that facilitates lower service and maintenance costs, increased operational safety and energy production

Wide customer portfolio

- More than 30 customers in 2010, including 5 of the 10 largest wind turbine manufacturers

Vision

- *“Together we capture the wind to power a cleaner world”.* LM Wind Power's focused business model is based on our unique ability to create value in efficient partnerships where we collaborate with suppliers and customers as well as internally in our own organization to secure clean energy for the world many years into the future.

Mission

- *LM Wind Power is the world's largest manufacturer of blades, brakes and components. We strive to be the preferred supplier to the wind industry, respected for our superior design, technology and service making our customers more successful and wind energy more compelling.*

Values

- We encounter and handle diversity every single day; this is an important part of our company's identity. A multifaceted company needs a common foundation that unites people across continents, regardless of language, education and culture. LM Wind Power's common foundation is our values. They serve as basic guidelines in our conduct and our contact with business partners. Our five values are:

- Focus on customer and market
- Work as one team
- Trust and respect
- Take ownership
- Innovate for excellence

Board of Directors

- Richard P. Hanson, Chairman
- John Leahy, Vice-chairman
- Birgit Østergård Pedersen, Staff-elected Board Member
- Morten Kjul Larsen, Staff-elected Board Member

Management

- Randy Fox, VP Operations
- Ian Telford, VP Sales & Marketing
- Jan Kristiansen, VP Product Development

Supported by LM Wind Power's executive management

- Roland Sundén, CEO
- Damien Harte, CFO
- Frank V. Nielsen, CTO
- Søren Høffer, VP Corporate Affairs
- Steven Wang, VP Business Development China

Contact information

Headquarters:

LM Wind Power
Jupitervej 6
6000 Kolding
Denmark

Tel. +45 79 84 00 00
Fax. +45 79 84 00 01
www.lmwindpower.com
info@lmwindpower.com

Global Communications

Lene Mi Ran Kristiansen
Tel. +45 79 84 0236
Email: lmrc@lmwindpower.com

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