



FIBOX
Enclosing innovations



**Enclosures
for Wind Turbines**



ENCLOSURES FOR WIND TURBINES

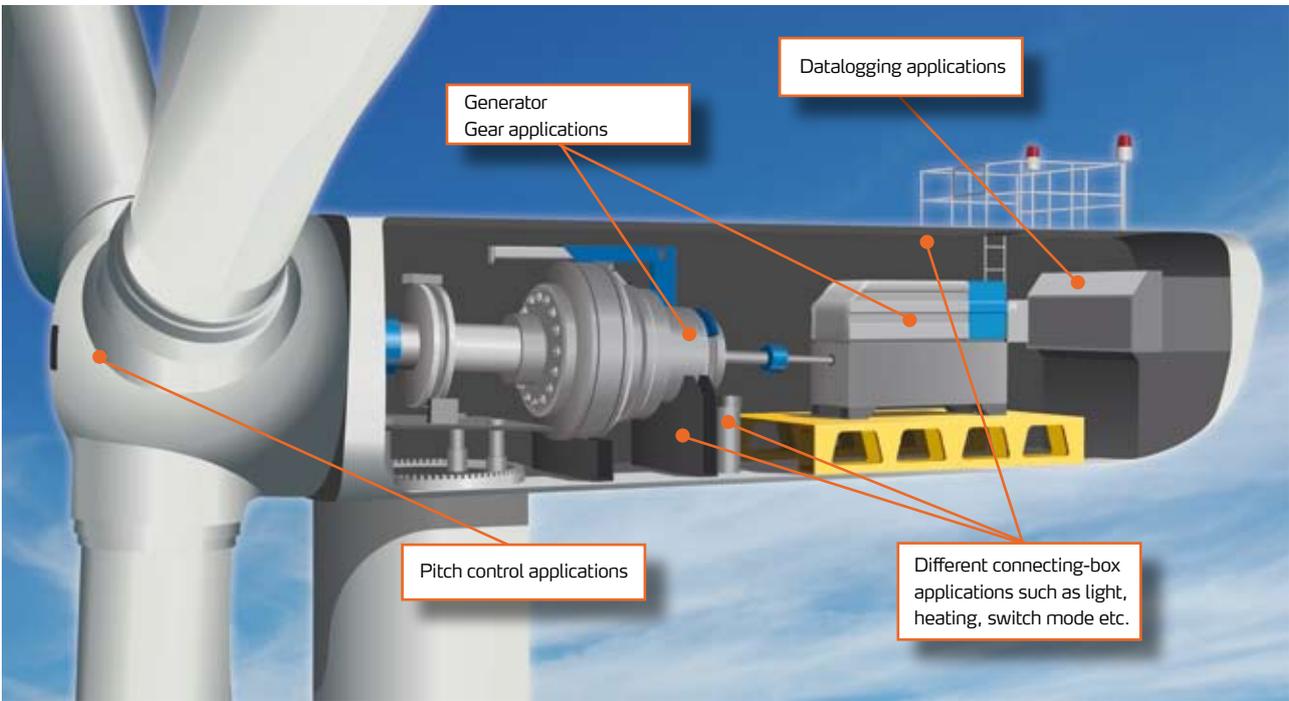


1. Background

With the increasing worldwide energy demand, wind power offers an advanced and highly sophisticated technology as well as one of the most economical renewable energy sources. The global growth estimates from 26.600 MW (2008) to 50.800 MW (2012)* are solid proof of the industry's significance.

FIBOX serves leading wind turbine manufacturers and provides a selection of enclosures ranging from standard enclosures to customized enclosures. FIBOX also offers entirely custom-made enclosure designs to meet specific customer requirements. FIBOX has a deep understanding of the customers' applications, a strong material and electrical-engineering knowhow, rapid prototyping processes as well as wide enclosure range for protecting electrical and electronic components and systems. A FIBOX enclosure will guarantee that your equipment has the protection that it deserves. We are currently working with leading manufacturers such as Vestas, GE, Gamesa, Enercon, Suzlon and Siemens as well as with leading component suppliers such as ABB and Moventas.

2. Main FIBOX Enclosure Applications in Modern Wind Turbine Construction



The sophisticated, electronic components of modern wind-turbine constructions require light-weight enclosures that provide excellent protection, suit various types of environments and offer easy access to the components during maintenance.

FIBOX enclosures are suitable for all turbine sizes from 0.5 MW to 3 MW.

They protect the equipment in all types of environments from onshore installations to harsh marine environments.

*BTM Consult: World Market Update 2007

3. FIBOX Offering

Our standard enclosure range covers more than 1000 enclosures: this widest possible selection guarantees an optimal solution for every need. The standard enclosures are easily customized, which keeps costs down as well as meets exact requirements. Here, two different product families are presented as examples - please refer to the separate, specific enclosure overview for more technical details.

FIBOX MNX™ - Ideal for onshore installations



MNX polycarbonate and ABS enclosures use world-class, 2-component injection moulding technology. They are designed to house and protect all types of electronic components in the most demanding applications. There are more than 260 standard versions in the MNX-range, including PCM-models with metric knock-out versions. Size range: 100 x 100 x 35 - 360 x 255 x 152 mm.



Wide selection more than 260 versions

Recess area for membrane keypads

PCM versions: knock-outs molded in place for easy wiring

FIBOX CAB™ - For control panel housing:



New CAB PX and CAB P enclosures are specifically developed to meet the chemical, thermal and mechanical challenges in the harsh and demanding conditions of offshore environments.



Adjustable depth for front panel

Impact resistant design

Multiple closing options

In addition to offering our standard enclosure range, we apply complete freedom in the design of customer-specific enclosures. We are also experienced in engineering, manufacturing and testing the required control units for wind turbines.

Please contact us to find optimum solution for your specific needs!

4. Global Presence

Our global service network covers the entire world: Fibox has manufacturing facilities in 5 countries, sales offices in 13 countries and distributors in 30 countries.



5. FIBOX Key Benefits

- Leading supplier of thermoplastic enclosures for harsh and demanding environments.
- Over 40 years of experience in the enclosure business.
- A wide range of products - over 1000 standard enclosures.
- High-quality products guarantee maintenance cost savings.
- Customer-specific enclosures - optimum solution for your needs.
- Engineering, manufacturing and testing of control units for wind turbines - FIBOX already acts as a manufacturing partner for many suppliers.
- Global service network: guarantees precise and on-time deliveries.

Contact Us:

FIBOX Oy Ab

Keilaranta 19, 02150 Espoo, FINLAND

tel: + 358-207-785700, fax: + 358-207-785706, email: info@fibox.fi, www.fibox.com

FIBOX Sales Offices:

Benelux	tel: + 31 (0) 541 539039
Denmark	tel: + 45 4371 8055
France	tel: + 33 1 60 21 17 17
Germany	tel: + 49 (0) 5731 86946 0
Poland	tel: + 48 22 872 9498
Russia	tel: + 7 812 334 76 50
Sweden	tel: + 46 8 792 2670
Switzerland	tel: + 41 (0) 55 617 20 80
UK	tel: + 44 1642 604 400
USA	tel: + 1 410 760 9696
Korea	tel: + 82 32 814 6742 (Incheon)
China	tel: + 86 216 495 9922 (Shanghai)

