

Wind Solutions

BOLTcontrol - bolt breakage detection system for wind turbines

Monitor blade bearing bolts safely, permanently and easily

BOLTcontrol is a monitoring system that detects broken bolts in wind turbines. The system prevents consequential damage as broken bolts are held securely in place. By continuously monitoring the rotor blade bolts, BOLTcontrol minimises downtimes, reduces repair costs and ensures the safe continued operation of the turbine.

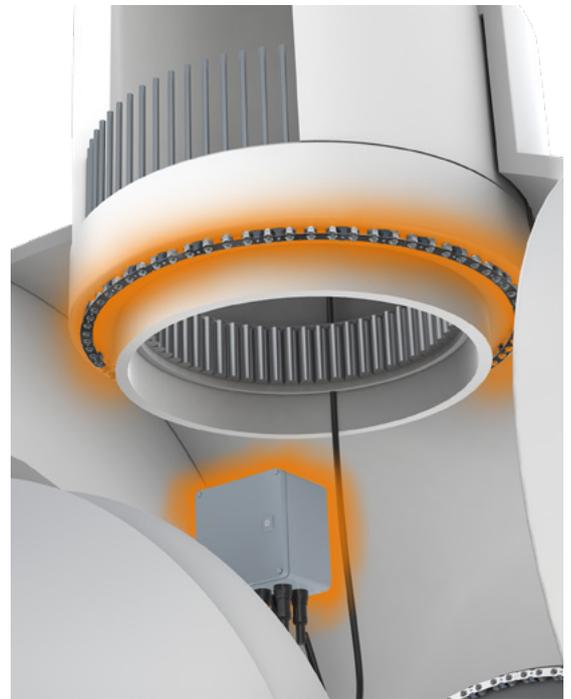
Blade bolts act as a bolted connection between the hub and rotor blade and are therefore permanently exposed to dynamic loads. BOLTcontrol not only detects a broken bolt, but also offers protection against the consequential damage caused by broken bolts.

Your benefits:

- Maximum safety
- Protection against consequential damage to the wind turbine
- Reduction of downtimes and repair costs
- Adaptable to different turbine types

BOLTcontrol – Bolt breakage detection system for wind turbines

- **Prevention of consequential damage:** Broken bolts can have devastating consequences, ranging from damage to hydraulic and mechanical components to damage to the pitch system. BOLTcontrol keeps broken bolts safely in place to avoid costly repairs and downtime.
- **Comprehensive monitoring:** Our system ensures monitoring of the bolts on the inner and outer ring of the blade bearing. Whether for a partial area or as 360 degree coverage with BOLTcontrol you have everything in view.
- **Support for continued operation certification:** Continuous monitoring with BOLTcontrol eliminates the need for expensive, labour intensive on site inspections of the bolts and complete replacement of the blade bolts, resulting in considerable cost savings.
- **Adaptability:** BOLTcontrol can be customised for any type of turbine. An alarm message can be sent via an interface to the pitch system or to the customer's SCADA.



Solution components of BOLTcontrol

Our BOLTcontrol system consists of detection plates and an evaluation unit. The detection plates and their holding magnets can be adapted to different wind turbines for specific applications. The evaluation unit is available as a control cabinet and DIN rail version.



Detection plate with holding magnets



Evaluation unit as control cabinet variant



Evaluation unit as mounting rail variant

The typical error pattern depends on the turbine type. We will be happy to advise you on selecting the right condition monitoring solution for your turbines.

We are looking forward to the dialogue with you!



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