



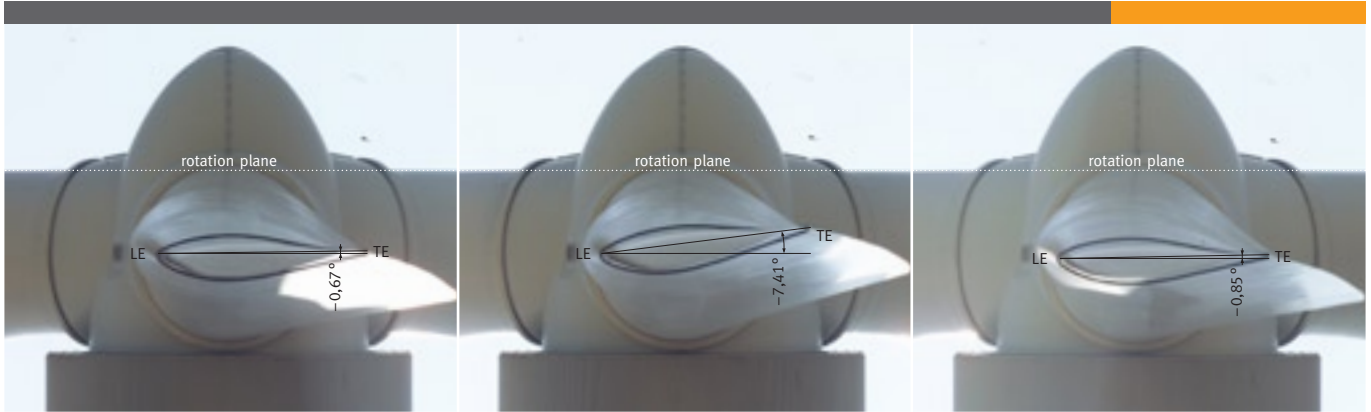
MEASUREMENT





Reduction of Vibration and Power Optimization

Optimization – Photometric Measurements



Blade angle measurement of a rotor blade set

Detection of blade angle misalignment within one blade set – Reduction of rotor caused vibrations

Incorrect adjusted blade angles are detected at wind turbine rotors very often. A deviation of the rotor blade angles within one rotor blade set is very problematic for the wind turbine structure. Vibrations in rotor frequency are induced.

A deviation of the blade angles of more than 0.5° can already lead to a significant aerodynamic rotor imbalance. This imbalance can be avoided by checking the synchronous adjustment of the rotor blades.

On base of our long-term experiences we are able to realize the blade angle measurement with an accuracy of $\pm 0.2^\circ$. So, we precisely detect whether the rotor blades are optimal adjusted or not.

Detection of wrong offset blade angle adjustment – Power optimization

Wrong adjusted blade angles potentially cause significant power loss of the turbine and reduction of the energy yield. With our measurement method the offset angles and the blade twist of rotor blades can be analysed. This is the base for optimal offset angle adjustment of the rotor blades.

Measurement of several geometric parameters of the rotor blades

Beside the offered blade angle measurement with our special marking method it is possible to measure further geometric parameters of the rotor blade:

- » Normative-actual value comparison of the profile parameters
- » Normative-actual value comparison of the blade twist
- » Normative-actual value comparison of the blade length

We propose measures to solve your problems concerning energy yield losses and (remarkable) vibrations caused by the rotor blades of your wind turbine!

