



Nabtesco



# CMFS

Condition monitoring system with fail-safe function



Seamless condition monitoring of the yaw drive system including overload detection



Protective mechanisms to prevent overloading and premature wear



Longer service life, reliability and significant cost reductions

# Condition-Monitoring-System

For the yaw drive system of wind turbines

The condition monitoring system with fail-safe function (CMFS) enables permanent, seamless condition monitoring of the yaw drive system of wind turbines - both during operation and in phases in which the yaw drives are not actively moving. It monitors the individual drive units, detects overload situations and automatically ensures even load distribution.

This extends the service life of the wind turbines, prevents power generation failures and significantly reduces repair, maintenance and operating costs. A real game changer for the wind industry.



## Innovative technology for the wind industry

The condition monitoring system consists of four components - screw strain sensor, signal converter, control unit and power supply unit - and can be installed in a short space of time.

The high-precision strain sensor measures the external forces. These are processed and analyzed by the control unit.

If the values exceed critical parameters, the control unit automatically reduces the load by briefly releasing the electromagnetic brake on the affected drive unit.

Subsequent installation in existing wind turbines is easily possible by simply replacing the fastening screws with the strain sensor screws. The control unit and power supply unit are only required once per system.

## The yaw drive system: your key to long-term safety

The yaw drive system takes over the horizontal wind direction tracking and ensures that the nacelle is optimally aligned with the wind at all times - a key requirement for maximum energy yield.

Due to the process and application, there is usually an uneven load distribution between the individual yaw drives.

This means that premature wear is inevitable - and can result in high costs.

These risks can be significantly reduced by distributing the loads evenly. Our condition monitoring system with fail-safe function (CMFS) offers you the decisive plus in safety here!

Do you have any questions or need an advice?

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