We pioneer motion

Precise bearing preload for adjusted bearing arrangements

Preload measuring system instead of manual measurements

Avoid bearing wear and failures
Setting the exact bearing preload during installation and monitoring it during operation is possible with the Premesy preload measuring system. The solution, which won the Wind Future Award 2021, records axial displacements in rolling bearings and, for the first time ever, converts them into the corresponding bearing preload accurately and precisely.

For example, when setting the rotor bearing preload in wind turbines, a few micrometres make all the difference. Even small deviations can lead to increased bearing wear and consequently to bearing failures. The preload measuring system minimises this risk.

How do you benefit from it?
- Maximised bearing life
- Good bearing kinematics in operation
- Quality assurance through preload control
- Mounting process controlled online

medias.schaeffler.de/en/monitor

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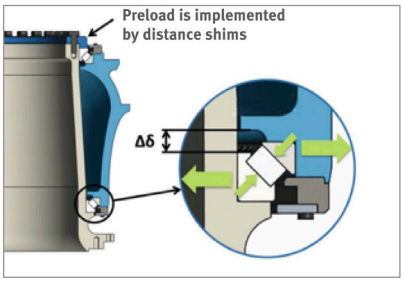
Preload measurement system avoids failures

Take your mounting process to the next level

Using Premesy for the mounting process of a preloaded bearing application makes the process repeatable and increases the mounting quality to a maximum. Keeping an eye on the preload during operation allows you to identify inadequate load situations and to detect a systematic loss of preload.
The Premesy system has a number of features for this purpose:

Technical features
- Full metal, digital distance sensors
- Highly resistant IP68 sensor and cable
- High accuracy (2-3 µm) in the measuring range of 0-6mm (7mm)
  4 flexible analogue outputs (voltage or current selectable)
  and 1 digital output
- Easy network integration of the Premesy module
- Internal permanent data memory (6 months FIFO)

Software functions
- Online preload display during mounting
- Automated measuring sequence incl. limit value control
- Direct system feedback when limit values are exceeded
- Quality assurance through fast creation and storage of mounting report



How does Premesy work?
The optimum preload is calculated using the finite element method (FEM), especially for large bearing arrangements. Under preload, the rolling contacts of the bearing deflect, while the surrounding structure is elastically deformed. This leads to a displacement between the bearing rings, which can be determined in advance with the help of an FE calculation and measured using Premesy.

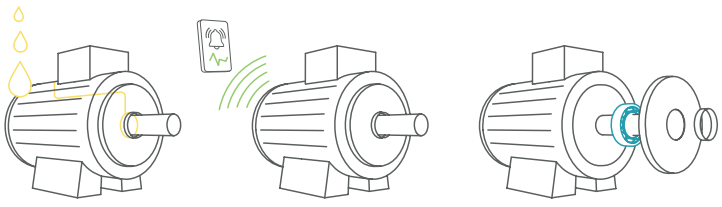
What our customers say ...

Premesy helps us install main bearings using a preload within the prescribed limits. The installation of the sensors is easy and we do not have to fix everything in the MBA, i.e. MainBearingAssembly, with cable ties and clamps, which is time-consuming in series production. The Premesy software is clear and significantly simplifies the assembly documentation.

Process engineer, wind industry

Premesy is part of the Schaeffler Lifetime Solutions portfolio, which offers a comprehensive range of products, services and solutions for industrial maintenance. It is designed to support maintenance engineers throughout a machine's entire lifetime.

www.schaeffler.de/en/lifetime-solutions



Lubricate Monitor Mount

Solutions, Expert Services and Trainings

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