Press release

Newly developed free-moving probe

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**Precise roughness measurement for internal and external gears**

**When it comes to aviation, top quality is essential – for every single component. For surface quality measurement, Liebherr-Verzahntechnik GmbH is the only manufacturer to offer a solution for internal and external gears on its measuring devices – optionally with skid or free-moving probe – in a single workpiece clamping.**

For the aerospace industry, high-precision roughness measurement of the surface quality of gear teeth is a key requirement for ensuring dimensional accuracy, wear resistance, and longevity. With its new development, Liebherr-Verzahntechnik GmbH is the only supplier that enables roughness measurements on gears using both a skid-type probe and a free-moving probe.

**Tried-and-tested skid probe**

Skid probes use a skid as a reference level and measure the microprofile of the surface relative to this. They are lightweight, easy to handle, and sufficient for many standard applications. However, for particularly demanding applications **–** such as in aerospace application, and for polishing- processes **–** more extensive values must be recorded.

**Light and precise free-moving probe**

The free-moving probe is fully mobile and, in addition to roughness, also detects other geometric features of the surface. Its mechanics are so lightweight and compact that it fits into even the smallest installation spaces and detects all relevant roughness characteristics. “Our free-moving probe can be used from module 1.0 and in internal gears with diameters starting from 120 millimeters,” explains Omar Sharif, Head of Measuring Technology.

**Measuring in a workpiece clamping**

Tooth and roughness measurements can be performed in a single setup, with automatic probe change. The LHInspect software allows detailed configuration of the roughness measurement parameters and the roughness features to be examined. The new measuring system was unveiled at the Control trade fair in May and will be presented again at EMO in September.

Photos

Ein Bild, das Materialeigenschaft, Aluminium, Im Haus, Silber enthält.

KI-generierte Inhalte können fehlerhaft sein.

Rauheitssensor\_6.jpg

Ein Bild, das Maschine, Zahnrad, Elektronik, Haushaltsgerät enthält.

KI-generierte Inhalte können fehlerhaft sein.

Rauheitssensor\_5.jpg

Lightweight and compact mechanics enable maximum precision in roughness measurement.  
  
  
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