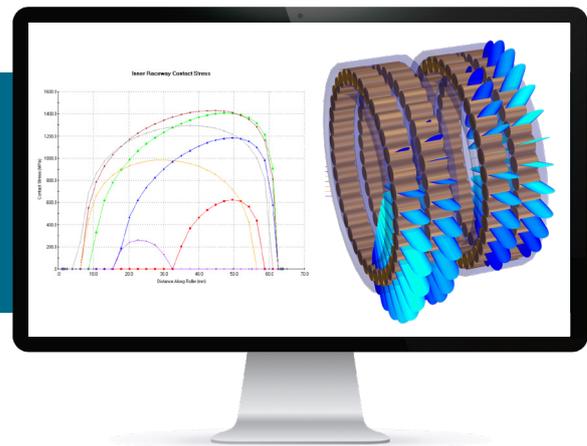


# Romax Spin

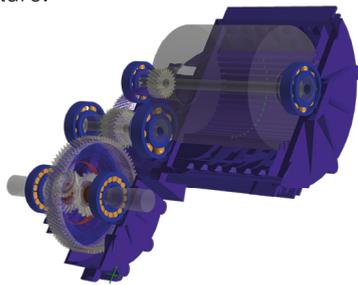
Advanced simulation of rolling element bearings for bearing designers and application engineers



Bearing specialists need independent tools which offer advanced analyses and allow suppliers and customers to collaborate. They require access to the latest technology for advanced analytical methods, combined within a full electro-mechanical system simulation.

Applications range from selecting appropriate bearings for a concept design, to designing a custom bearing for a specific application, to identifying the root cause analysis of a bearing failure.

Romax are founded on bearing expertise, and Romax Spin embodies our latest, world-leading technology in this area.



## Benefits

- Bearing design - cutting-edge rolling bearing analysis provides unrivalled performance insights, to enable bearing design for optimal system performance Right First Time
- Application optimisation - rapidly deliver the perfect bearing arrangement and accurate results for any application, with confidence
- Better collaboration - fostering a growing ecosystem facilitating easy data exchange and protecting valuable IP

**“Ultimately, we use Romax instead of homegrown code or other software tools for a few reasons. Firstly, because it performs reliable and accurate bearing analysis. Secondly, because it is very fast and flexible when it comes to using different options for modelling and analysis. Thirdly, we can consider details which are simply not feasible in traditional code, such as the effect of housing and shaft flexibility on the system. We have observed good correlation between our own tools and the results we get from Romax; it is just as accurate and much, much easier. Overall, Romax significantly facilitates our bearing design operations.”**

**Steven Chinitz,**  
Senior Engineering Manager for Wheel Bearings,  
C&U Bearings

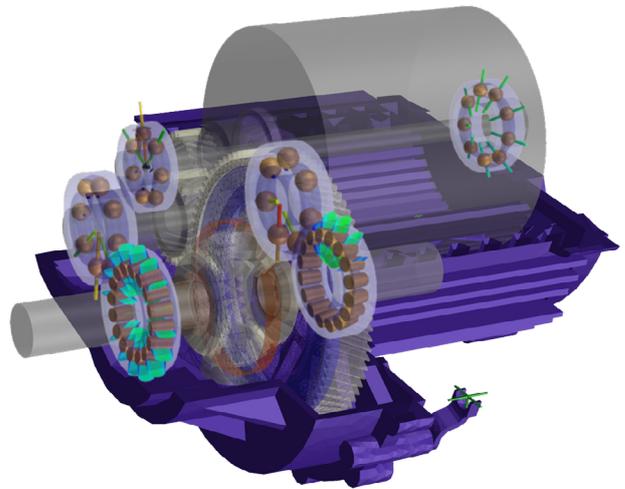
## Romax Spin: insight through cutting edge analysis and simulation of rolling element bearings

### Modelling:

- Quickly and easily build a detailed, parametric electro-mechanical system model, including shafts, bearings, gears, splines, clutches, housings, and electric machines
- Search supplier catalogs directly and choose from more than 60,000 bearings from SKF, Schaeffler, Timken, JTEKT, and Nachi
- Model fully customisable bearings of all ball and roller types, including all external, internal dimensions and micro-geometry
- Specify ring flexibility, clearance and press fits, preload, internal clearance, mounting distortion, temperatures and other assembly and operating properties
- Analyse bearing stresses to the finest detail with the enhanced bearing contact analysis featuring a coupled strip model accurately capturing roller edge stresses, end effects, material yield, rib contact, and truncation
- Accurate bearing stress including micro-geometry means you get the most accurate results from ISO 281, ISO/TS 16281, and other life prediction methods
- Perform rolling bearing time domain simulation to understand dynamic behaviour and avoid new, non-conventional failure modes such as bearing skidding

### Analysis:

- Perform advanced analysis of rolling element bearings to give unrivalled insight into bearing performance, enable optimal bearing selection and avoid premature bearing failures
- All calculations are based on a fully-coupled flexible system simulation optimised for speed and accuracy and underpinned by a sophisticated non-linear bearing stiffness model
- Accurately and rapidly predict static deflections, misalignments, loads, and stresses at different operating conditions



Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Romax, part of Hexagon's Manufacturing Intelligence division, provides world-leading solutions for the design, analysis, testing and manufacture of gearboxes, drivetrains and bearings. Learn more at [romaxtech.com](https://romaxtech.com). Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at [hexagon.com](https://hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).