Bearings

Configuration

- Calculation of single bearing or bearing-shaft system, any number of bearings in system
- With single load or load spectrum
- Sizing function for bearing selection

Bearing life rating

- Basic rating using load capacity numbers
- Modified rating considering lubricant properties
- Reference rating considering load distribution
- Modified reference rating
- Along ISO 281, ISO/TS 16281, ISO 76

Bearing stiffness and clearance

- Based on bearing inner geometry
- Shaft-bearing interaction for shaft and bearing systems
- Considers operating clearance / pre-tension
- Considers bearing, shaft, hub tolerances

Load distribution calculation

- Load distribution among rolling elements
- Contact stresses for balls
- Contact stresses for rollers, considering roller geometry modification (logarithmic)
- Contact stress distribution on raceway

Thermal rating

- Along DIN 732

Bearing database

- Bearing data from different bearing suppliers
- For different bearing types
- Basic bearing properties
- Bearing inner geometry, user editable
- Separate database for lubricants, lubricant purity definitions along ISO 4406

Hydrodynamic bearings

- Axial bearings DIN 31653, ISO 12130, DIN 31654
- Radial bearings ISO 7902, DIN 31652, DIN 31657, Niemann and Spiegel for grease lubricated bearings