
PRESS RELEASE

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GEARFOX Developer Software for KUKA Robots in use.

(MS-Graessner) The new, highly specialised and Internet based GEARFOX developer software from MS-Graessner shows what it's made of: Using a number of parameters, GEARFOX calculates perfect gear data for its respective area of use. For example, the new KL 100 linear unit, developed specifically for the KR AGILUS from KUKA.

Highest requirements made on dynamics and positioning accuracy.

Optimally designed drive train, high-performance gearbox – these were the requirements made by KUKA. As KUKA had already had excellent experience with DynaGear gearboxes from MS-Graessner, a gearbox from this series was also to be used for the new KL 100 linear unit for small robots.

GEARFOX always finds a solution – the perfect one.

Wanted: The optimal DynaGear gearbox for the KL 100 linear unit.

Found: The extremely compact DynaGear. Using GEARFOX, all

relevant operating modes and all types of the small robot series were integrated into the calculations. The thermal characteristics of the gearbox were also part of the testing procedure. And: With GEARFOX, the next smaller and next larger gearbox variant was also calculated and tested – with the result that the selected DynaGear, in addition to the required durability, still has enough power reserves and offers the most advantages with regard to dynamics and costs. So it was clear to KUKA even before permanent testing began that the DynaGear gearbox would fulfil all demands made on dynamics, thermal stability and durability to their complete satisfaction.



GEARFOX is a real all-rounder.

KUKA is an impressive example showing how GEARFOX can be used to calculate and determine optimal gearboxes for specific tasks, whilst taking into account all product

requirements, operating modes and other relevant parameters. By the way, this calculation model also applies for complete new developments and all other drive train components.

GEARFOX: Highlights of the calculations for the exact dimensioning of drive trains and optional components

- Bearing durability
- Gearing forces
- Efficiency
- Application torques and speeds
- Moments of inertia
- Axial and radial forces
- Motion cycles (square, cubic, quartic and quintic)
- Master-Slave calculations
- Use of extensive databases and material tables