

# GearEngineer      Cylindrical Gears

## Calculation of Involute Cylindrical Gears and Involute Splines

### DEPO GearEngineer

- **Basic Software Module:** For calculation of involute cylindrical gears; external and internal gears, spur and helical gears (DIN 3960 and other) incl. calculation of the load capacity according to DIN 3990 and ISO 6336 Method B, Involute splines (DIN 5480 and similar)
- **Language:** The software is available in German and English.
- **Output Format:** Output format for the 3D gear-tooth geometry is STEP/IGES
- **Documentation:** A calculation report provides all detailed results, input values and figures. The calculation report is available in HTML and PDF format.
- **Manual / Help:** The integrated manual includes general and technical information.
- **Software Protection:** In general, the software is protected by an USB device.

### Feature Overview

- Geometry of spur gear pairs according to DIN 3960, DIN 3961, DIN 3964, DIN 3967, DIN 3977 and DIN 868
- Consideration of profile shift modification incl. optimization function for balanced specific sliding
- A working centre distance can be specified, the centre distance can be also determined from defined profile shift coefficients
- Allowances for tooth thickness and centre distance can be selected from database or can be defined individually
- Addendum chamfer can be considered in the calculation
- Standardised basic rack profiles for tools according to ISO 53, DIN 867 and DIN 3972 (profile I and II) can be selected or can be specified individually, protuberance tools with and without allowance, dimensioning function for special basic rack profiles
- Type of tools: hob, gear shaper cutter and constructed involute
- Determination of the test dimensions
- Calculation of the tooth thickness allowances based on measured values or given test dimensions
- Display of the accurate calculated tooth form with animation / simulation of the tooth mesh

- Geometry calculation of internal spur gears with equal number of teeth is also possible (geometry of involute splines)
- Load capacity calculation according to DIN 3990, ISO 6336 Method B and ISO/TR 13989 with integrated material and lubricant database
- Consideration of grinding notches
- Optimum hardening depth, manual input of hardening depth and consideration in the load capacity calculation
- Selection of mode of operation is possible for swelling, alternating and oscillating
- Gearing efficiency
- Calculation of the safeties for fatigue or limited life strength and static strength (tooth root, flank/pitting, scuffing)
- Detailed calculation report in HTML and PDF format
- Output of CAD data: 2D DXF and 3D STEP/IGES

### Software Maintenance and Update Service

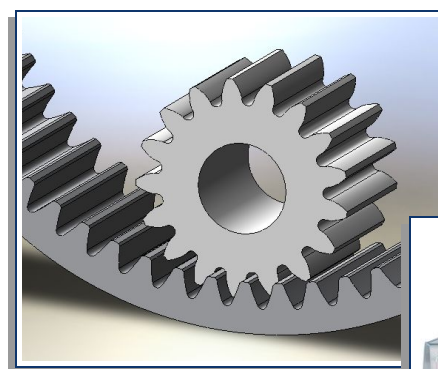
The software maintenance is necessary. In addition to updates and service packs, the software maintenance includes hotline support by phone, fax, e-mail and web meeting. A password-protected download center provides updates and service packs and contains adjustments to newer operating system versions as well as enhancements due to further developments of the software module. The user can subscribe to a mailing list to receive an automatic notification when important updates are available.

### On-Site Software Training Courses and Software Introduction

- Introduction, basic skills, individual settings, design strategies and other main topics in coordination with the user
- Course duration: 1 day, on-site (charges and travel expenses are not included)

### System Requirements

- WIN 2000, XP, VISTA or WIN 7
- JAVA 1.6
- USB port
- Web browser (Internet Explorer or Mozilla Firefox)



Awarded with  
MM Award at  
AMB 2010