

TBK - The software for gear design and mechanical engineering

Practical and qualified

The TBK software allows to calculate, design and optimize machine elements. The software works according to generally accepted calculation methods (e.g., DIN, ISO and AGMA).

For nearly 25 years, TBK is a widely accepted calculation software and is used in medium-sized companies. The calculation modules are developed in close co-operation with GWJ and the customers. According to helpful suggestions of users, a certain structure of the various program parts is accomplished over the years which leaves nothing to be desired, especially with regard to practical experience.

Extensive possibilities

The user starts all calculation modules through the main menu and is able to select between the different calculation configurations.

The user is also guided through the module step by step while being provided and supported with information and suggestions. Finally, the user gets the requested solution.

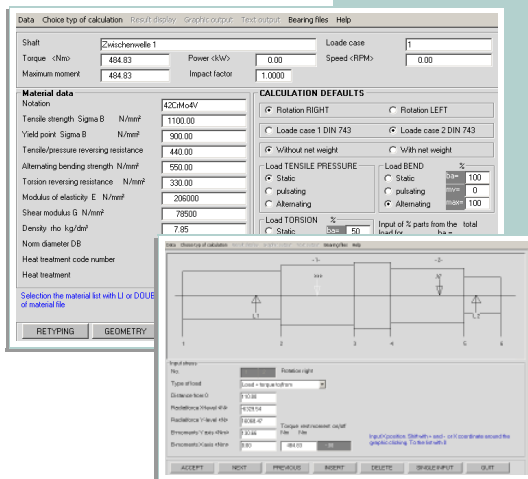
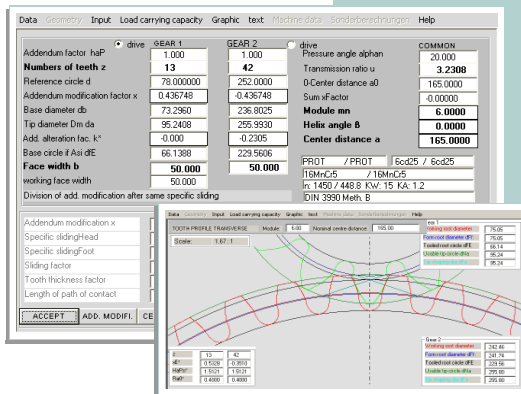
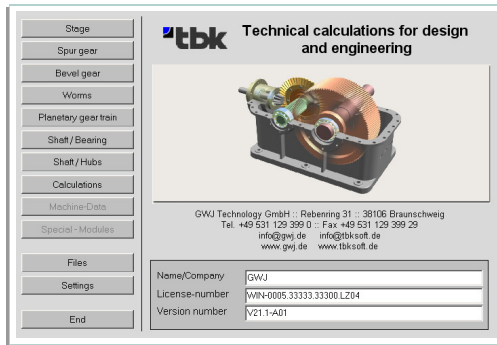
Spur gears

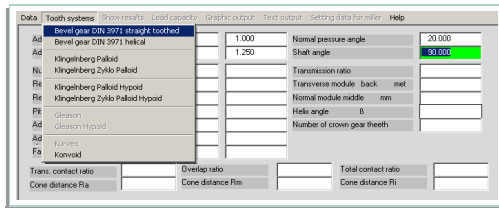
This module allows to calculate internal and external spur gear pairs used in general mechanical engineering and in precision mechanics.

The calculation of rack and pinion gears is also possible.

There are different possibilities to optimize the profile modification. Furthermore, all necessary test dimensions for the manufacturing process are determined.

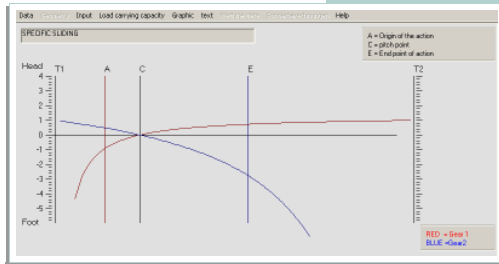
For the strength calculation, the TBK calculation software provides methods according to DIN 3990, ISO 6336 and AGMA.





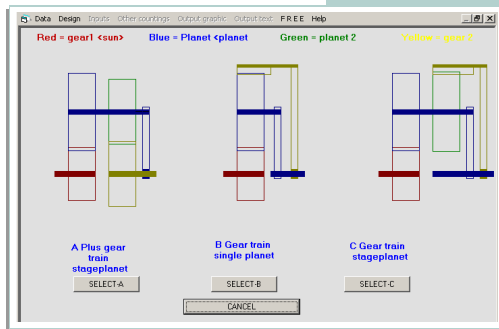
Bevel gears

The user can calculate straight and helical bevel gears according to DIN 3971 as well as palloid and cyclo-palloid bevel gears according to Klingenberg. A calculation of Klingenberg gearings with offset (hypoid bevel gears) is possible.



In addition to the determination of dimensions, a check for the manufacturing process is realized for the Klingenberg gearings. The strength calculation can be determined according to DIN 3991 and AGMA 2003. A86, for Klingenberg gearings additionally according to the Klingenberg standard.

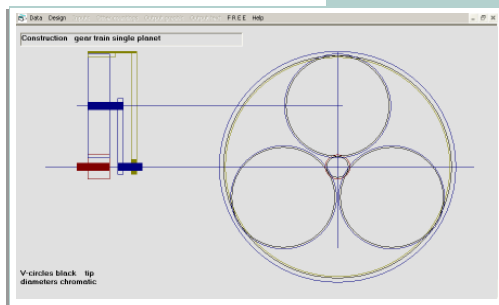
Planetary gear trains



TBK offers the possibility to dimension one-stage planetary gear trains with single planet or stage-planet. As a result, the user gets a kinematical design that includes the determination of the teeth number, profile shift modification, working transverse pressure angle and center distances.

The specific sliding is represented graphically. Furthermore, the efficiency factors, the pitch power, coupling power and the power loss will be calculated as well.

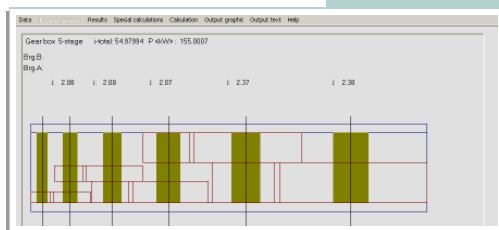
Multi-stage cylindrical gearboxes



TBK allows a fast and easy dimensioning of multi-stage cylindrical gearboxes. According to specified data and optimization parameters, the number of stages, the transmission ratio and center distances will be determined.

Further calculations modules

The TBK software package offers additional calculation modules (e.g., shaft-hub-connections, shafts, bearings, worm gears).



Convince yourself!

For more information and a free test version, please visit www.tbksoft.de or contact our sales department via email tbk@gwj.de.