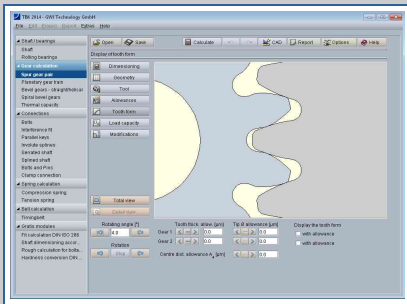
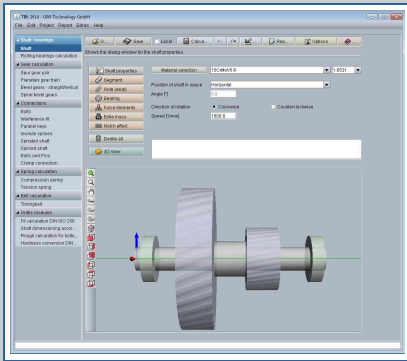


## TBK 2014 - Software for Gear Manufacturing & Mechanical Engineering



Report of cylindrical gear calculation

Results of calculation	
Geometry	
<b>Cylindrical gear pair</b>	
Normal circular pitch ( $p_n$ ):	12.5664 mm
Transverse pitch ( $p_t$ ):	12.5664 mm
Axial pitch ( $p_a$ ):	0.0000 mm
Circular pitch ( $p_c$ ):	11.8085 mm
Transverse circular pitch ( $p_{tc}$ ):	11.8085 mm
Transverse pressure angle ( $\alpha_t$ ):	20.0000 °
Working transverse pressure angle ( $\alpha_{wt}$ ):	20.0000 °
Helix angle base diameter ( $\beta_b$ ):	0.0000 °
Helix angle on the pitch circle diameter ( $\beta$ ):	0.0000 °
Transverse module ( $m_t$ ):	4.0000 mm
Ratio ( $i$ ):	-3.2308
Gear ratio ( $u$ ):	3.2308
Working centre distance ( $a$ ):	110.0000 mm
Standard centre distance ( $a_0$ ):	110.0000 mm
Sum of profile shift coefficients ( $\Sigma x^*$ ):	0.0000

### TBK 2014 - Practical and Competent Solution!

TBK software, which has been used in practice for over 30 years, is a widely recognized software package and is successfully used by many companies worldwide. Applications range from precision engineering to heavy machinery, from slow running drives to extreme high-speed turbo machines with speeds from 500.000 1/min and higher.

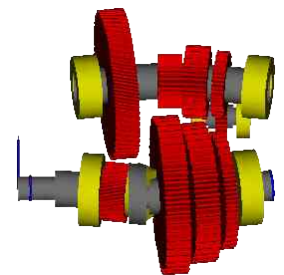
Gear manufacturing is one of the key applications. The software is used in the area of steel and cement industry, open cast mining or construction machines, trains, shipbuilding, wind turbines, water turbines, even for Formula 1 engines and helicopter test benches.

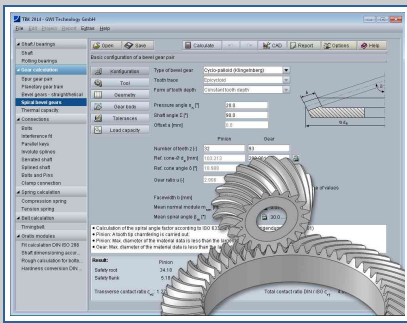
### Extensive Opportunities

A close cooperation between GWJ and TBK software users helped to build a practical and user-friendly software to calculate, dimension and optimize machine elements. The high-quality calculations are based on generally accepted calculation methods.

The appendix "2014" indicates that this completely new version takes advantage of the latest GWJ software technology. Combined with brand-new calculation modules, the latest software version features a number of major enhancements, including:

- Modern user interface
- Easy and intuitive handling
- Calculations according to DIN, ISO, VDI, ANSI, ...
- Redo and undo function
- Automatical re-calculation
- Dimensioning functions
- Extensive material and geometry selection
- Graphical representations
- Detailed results
- Calculation reports in HTML and PDF format with all important inputs and results
- Default settings
- Open XML save format
- Number of possibilities for automation
- Language selection: German or English

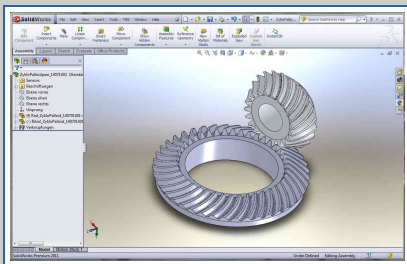




## Calculation Modules

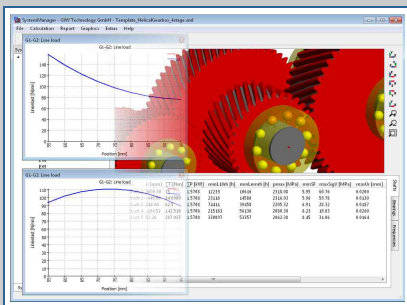
The are different calculation modules available, for example for shafts, bearings, parallel keys, interference fits, involute splines (DIN 5480 etc., ISO, ANSI, ...), serrated shaft and splined shaft connections, bolts & pins, clamp connections, bolted joints, timing belts, springs, cylindrical gears, planetary gear trains, bevel gears, etc.

The calculation core has been extensively tested and has proven its worth in practice for many years.



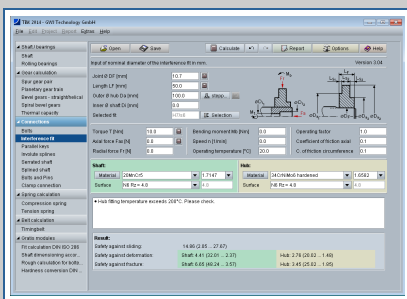
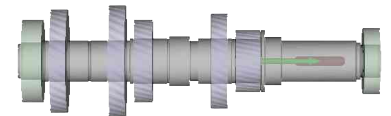
## Intelligent TBK 2014 CAD Plugins

TBK 2014 3-D CAD plugins offer a great way to connect calculation and design. The CAD plugins are available for different CAD systems. 3-D CAD models can be automatically created with just a mouse click. In addition, TBK 20014 supports also the output format DXF.



## System Calculation with SystemManager

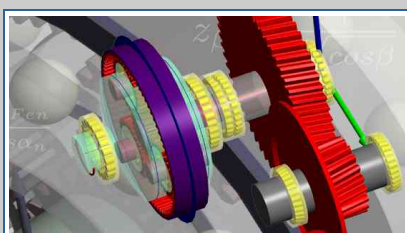
TBK 2014 software can be extended with the SystemManager. It allows for a fast and easy design of complete systems of machine elements. The application ranges from simple systems (e.g., single shaft or coaxial shafts with bearings and loads) to complex systems (e.g., multi-stage gearboxes with and without load sharing, manual gearboxes, any types of planetary gear trains).



## Clever Solutions Under One Roof

Focusing on mechanical engineering, GWJ Technology, headquartered in Braunschweig, Germany, stands for high quality products and innovative software development. With keen insight and high energy, we put our utmost efforts, skills, knowledge and passion into our work to achieve top quality products.

In addition, we also share our knowledge and insights through regular seminars, workshops and engineering services.



## See For Yourself!

For further information, please feel free to contact us by phone +49 (0) 531 129 399-0 or email [info@gwj.de](mailto:info@gwj.de). If you would like to learn more about our products, please do not hesitate to contact us for a free web presentation.

