

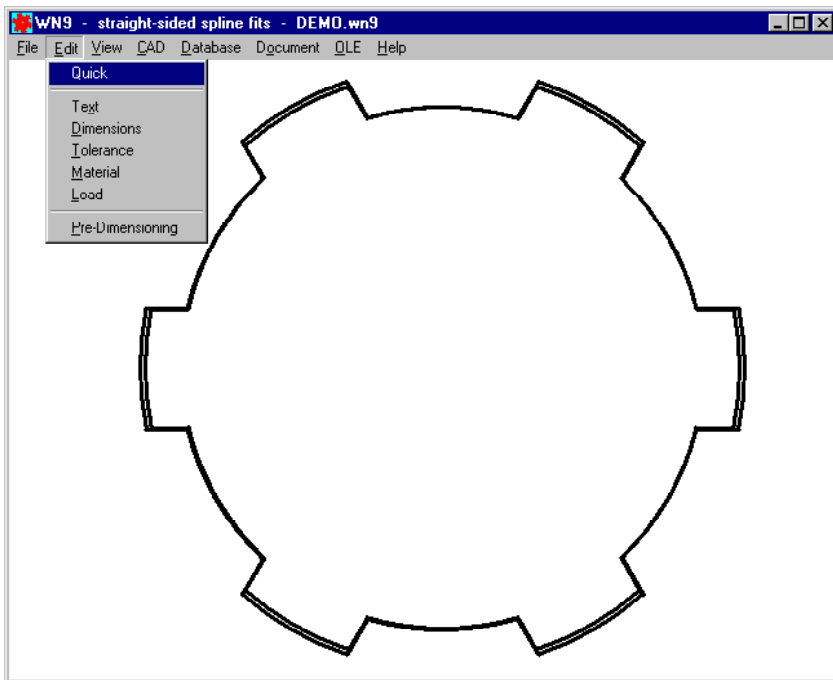
WN9



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Software for Straight-Sided Spline Fits



Calculation Base

WN9 calculates dimensions and tolerances of spline shaft connections with straight flanks according to ISO 14, DIN 5471, DIN 5472, DIN 5464 and SAE J499a. Non-standardized or self-defined profiles may also be calculated.

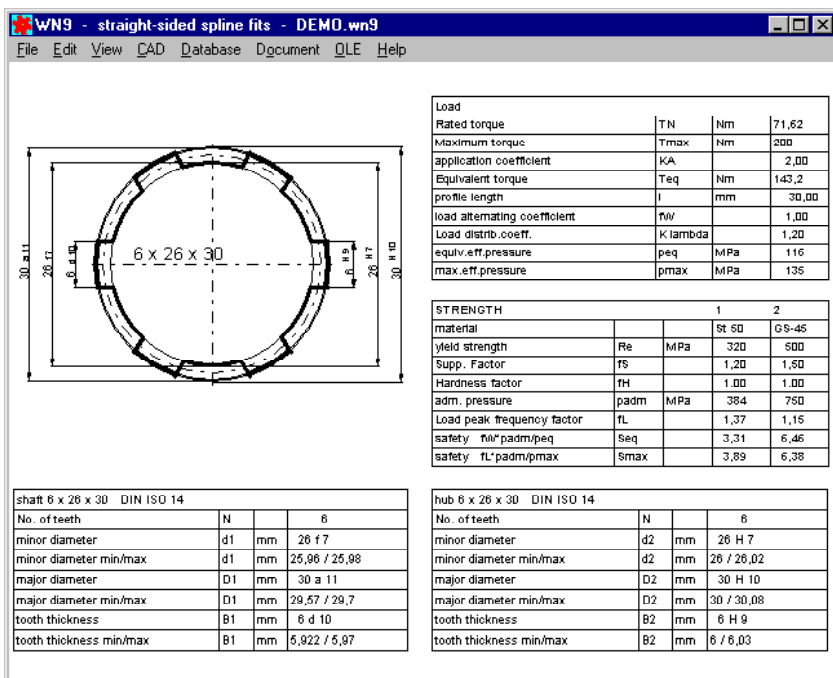
Flank pressure and safety number is calculated according to Niemann (Maschinenelemente 1, 2005) WN9 generates a true-scale profile drawing to be used with CAD or CNC.

Pre-Dimensioning

This option calculates an appropriate size for the spline shaft connection from input torque.

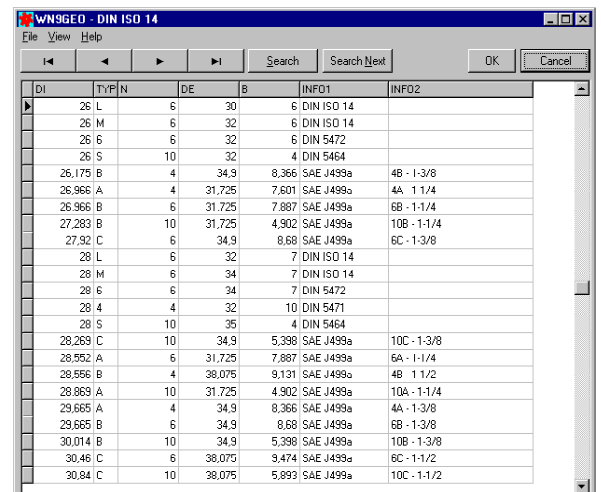
Dimensions

Standard sizes may be selected from the integrated database. Or you can enter the dimensions of your self-defined spline connection.



Profile Database

Integrated profile database includes standard sizes of DIN ISO 14, DIN 5471, DIN 5472 and DIN 5464 and SAE J499a. Database files may be modified and extended by the user.



shaft 6 x 26 x 30 DIN ISO 14			
No. of teeth	N		6
minor diameter	d1	mm	26 f 7
minor diameter min/max	d1	mm	25,96 / 25,98
major diameter	D1	mm	30 a 11
major diameter min/max	D1	mm	29,57 / 29,7
tooth thickness	B1	mm	6 d 10
tooth thickness min/max	B1	mm	5,922 / 5,97

hub 6 x 26 x 30 DIN ISO 14			
No. of teeth	N		6
minor diameter	d2	mm	26 H 7
minor diameter min/max	d2	mm	26 / 26,02
major diameter	D2	mm	30 H 10
major diameter min/max	D2	mm	30 / 30,08
tooth thickness	B2	mm	6 H 9
tooth thickness min/max	B2	mm	6 / 6,03

Tolerances

ISO tolerances for sliding fit, transition fit or interference fit (according to DIN ISO 14, DIN 5471 or DIN 5472) are suggested by WN9. Or you can directly enter ISO tolerances, and WN9 calculates the tolerance values.

Material Database

Material properties can be selected of the material database (> 900 records).

Load Capacity

WN9 calculates safety against overriding permissible flank pressure from torque, material data and application coefficients.

Quick View

Quick view shows calculation results with drawings and tables together on one screen.

Text Printout

Calculation results may be printed, saved as TXT or HTML file, or exported into MS-Excel.

Drawings and Tables

WN9 generates true-scale profile drawing of shaft profile and hub profile to be loaded into CAD. WN9 also generates tables with dimensions and tolerances.

Production Drawing

Dimensioned drawings and tables of the tooth profile may be printed or exported to CAD via DXF/IGES file. Drawing information and changes for ISO 7200 data field are defined in WN9.

Export Formats

DXF, IGES, STL, HTML, TXT, DBF, Excel, WN9.

Import Formats

TXT, DBF, Excel, WN9.

System Requirements

WN9 is available as 32-bit app or as 64-bit app for Windows 7, 8, Windows 10.

User Interface

WN9 provides users with a help text wherever they are in the program. When the demo mode is selected, WN9 runs through a demo in which an example calculation is performed. If error messages appear, you can get description and remedy suggestions.

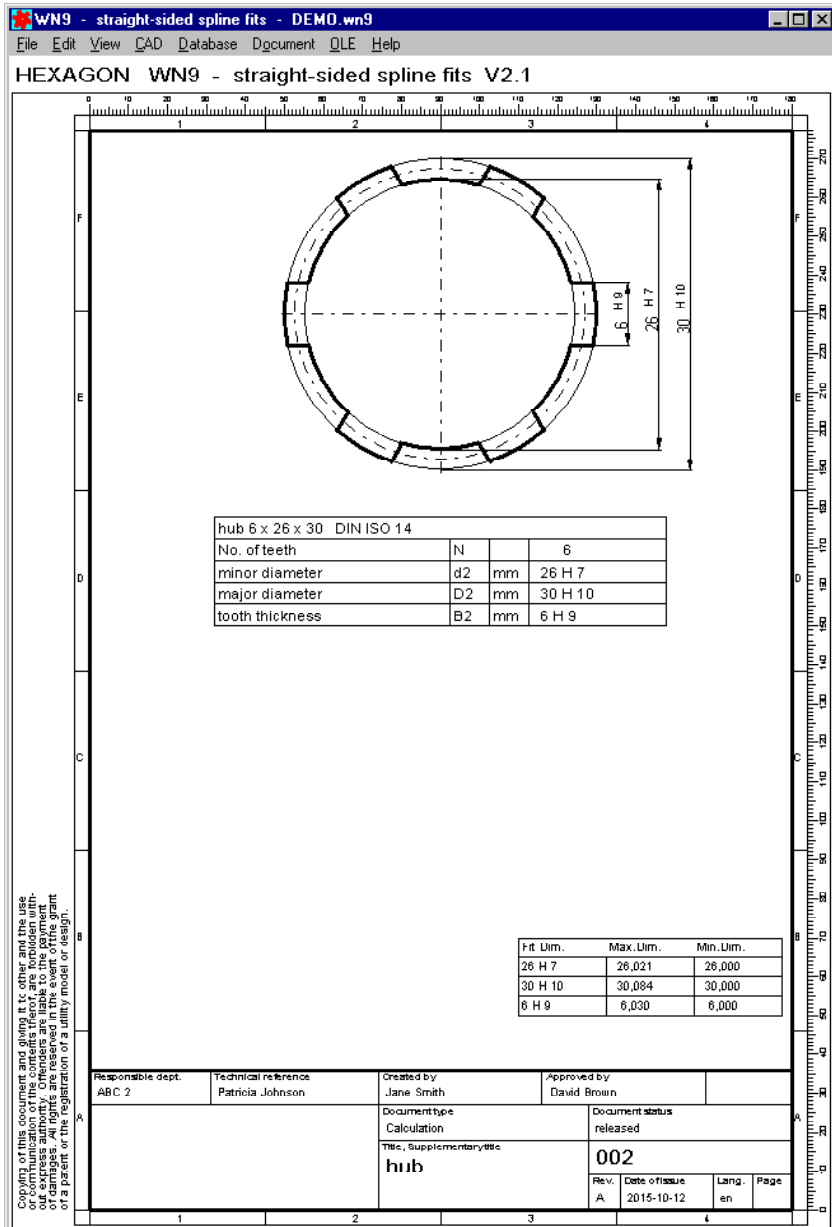
Scope of Delivery

WN9 Software with user manual (pdf), example applications and help images, non-expiring license for unlimited time use with update rights.

Guarantee

HEXAGON gives a 24 month guarantee on full functionality of the software.

HEXAGON Software is continuously improved and updated. Registered users are regularly kept informed of updates and new editions.



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