WN9

Software for Straight-Sided Spline Fits

for Windows

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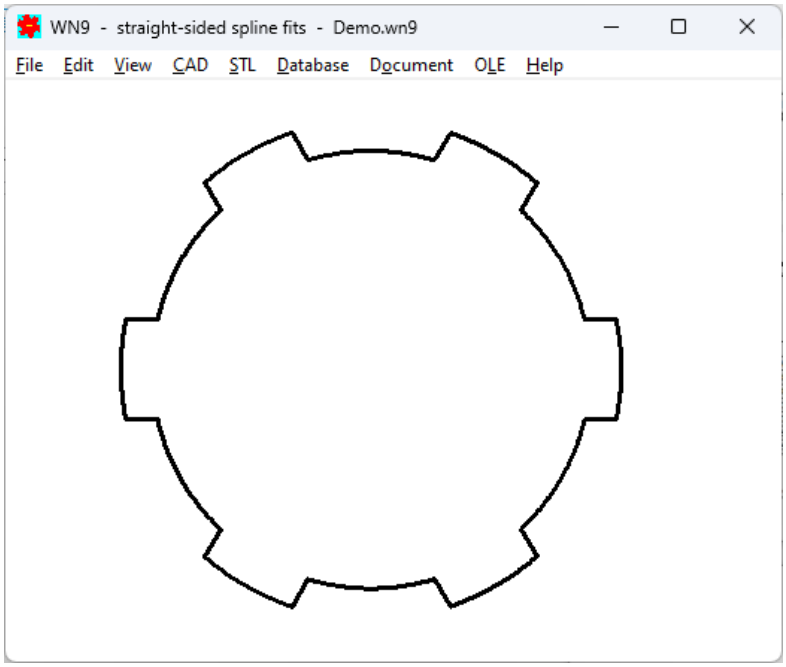
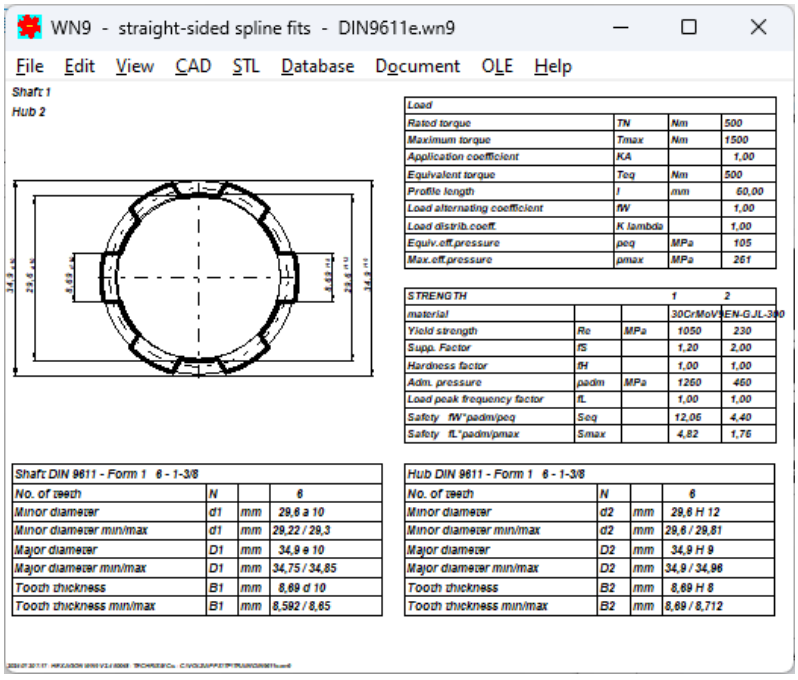


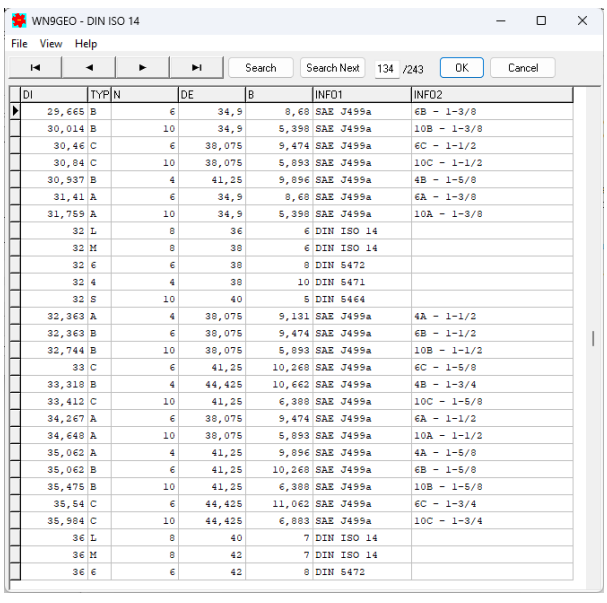


Calculation Base
WN9 calculates dimensions and tolerances of spline shaft connections with straight flanks according to ISO 14, DIN 5471, DIN 5472, DIN 5464 and SAE J499a. Non-standardized or self-defined profiles may also be calculated. Flank pressure and safety number is calculated according to Niemann (Maschinenelemente 1, 2005) WN9 generates a true-scale profile drawing to be used with CAD or CNC.

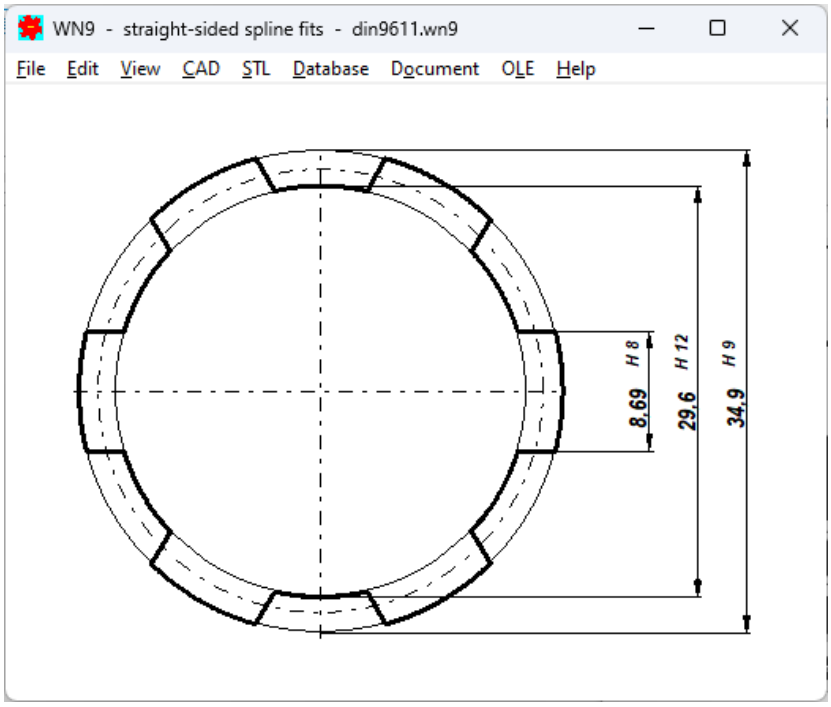
Pre-Dimensioning
This option calculates an appropriate size for the spline shaft connection from input torque.

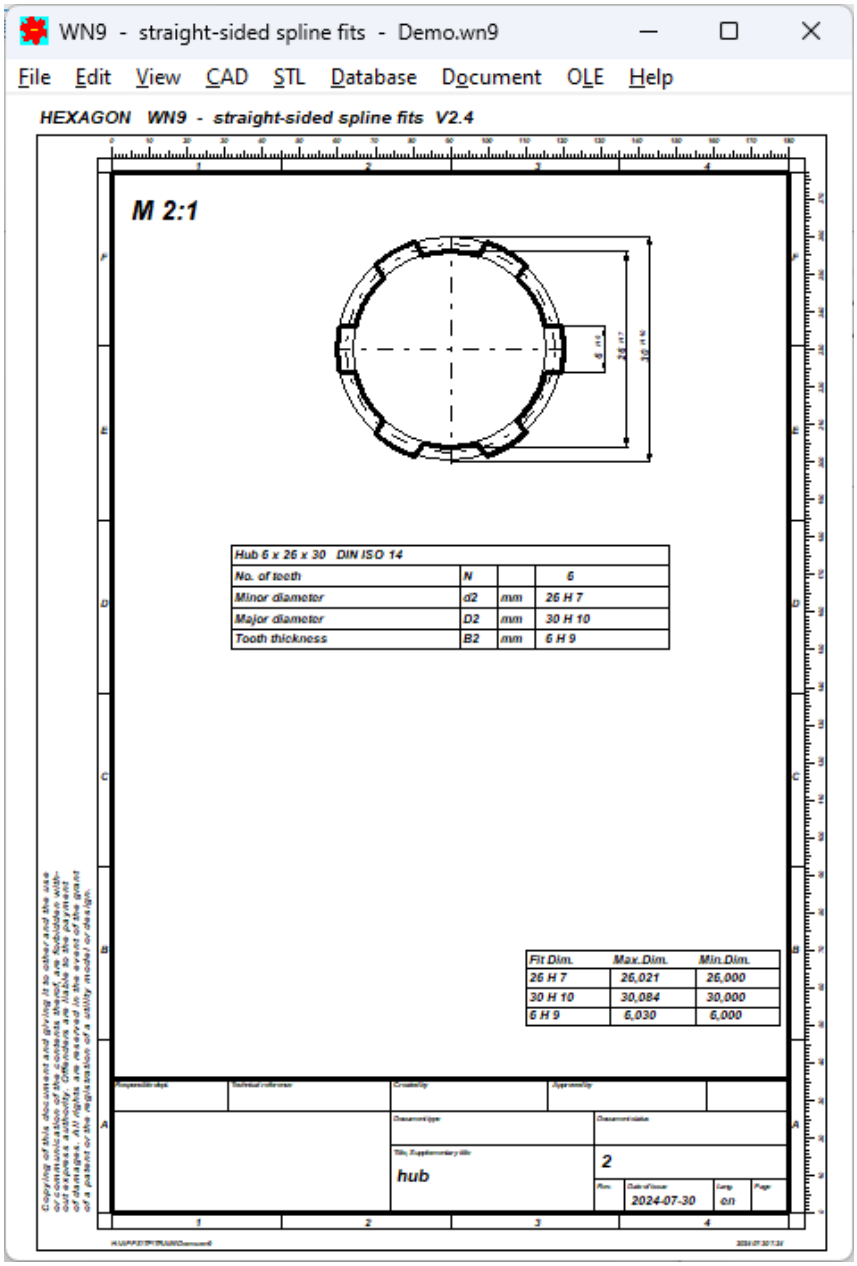
Dimensions
Standard sizes may be selected from the integrated database. Or you can enter the dimensions of your self-defined spline connection.

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.



DI	TYP	N	DE	B	INFO1	INFO2
29,665	B	6	34,9	8,68	SAE J499a	6B - 1-3/8
30,014	B	10	34,9	5,398	SAE J499a	10B - 1-3/8
30,46	C	6	38,075	9,474	SAE J499a	6C - 1-1/2
30,84	C	10	38,075	5,893	SAE J499a	10C - 1-1/2
30,937	B	4	41,25	9,896	SAE J499a	4B - 1-5/8
31,41	A	6	34,9	8,68	SAE J499a	6A - 1-3/8
31,759	A	10	34,9	5,398	SAE J499a	10A - 1-3/8
32	L	8	36	6	DIN ISO 14	
32	M	8	38	6	DIN ISO 14	
32	6	6	38	8	DIN 5472	
32	4	4	38	10	DIN 5471	
32	S	10	40	5	DIN 5464	
32,363	A	4	38,075	9,131	SAE J499a	4A - 1-1/2
32,363	B	6	38,075	9,474	SAE J499a	6B - 1-1/2
32,744	B	10	38,075	5,893	SAE J499a	10B - 1-1/2
33	C	6	41,25	10,268	SAE J499a	6C - 1-5/8
33,318	B	4	44,425	10,662	SAE J499a	4B - 1-3/4
33,412	C	10	41,25	6,388	SAE J499a	10C - 1-5/8
34,267	A	6	38,075	9,474	SAE J499a	6A - 1-1/2
34,648	A	10	38,075	5,893	SAE J499a	10A - 1-1/2
35,062	A	4	41,25	9,896	SAE J499a	4A - 1-5/8
35,062	B	6	41,25	10,268	SAE J499a	6B - 1-5/8
35,475	B	10	41,25	6,388	SAE J499a	10B - 1-5/8
35,54	C	6	44,425	11,062	SAE J499a	6C - 1-3/4
35,984	C	10	44,425	6,883	SAE J499a	10C - 1-3/4
36	L	8	40	7	DIN ISO 14	
36	M	8	42	7	DIN ISO 14	
36	6	6	42	8	DIN 5472	





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 11, Windows 10, Windows 7.

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.