W N 8

Software for

Serrations according to DIN 5481

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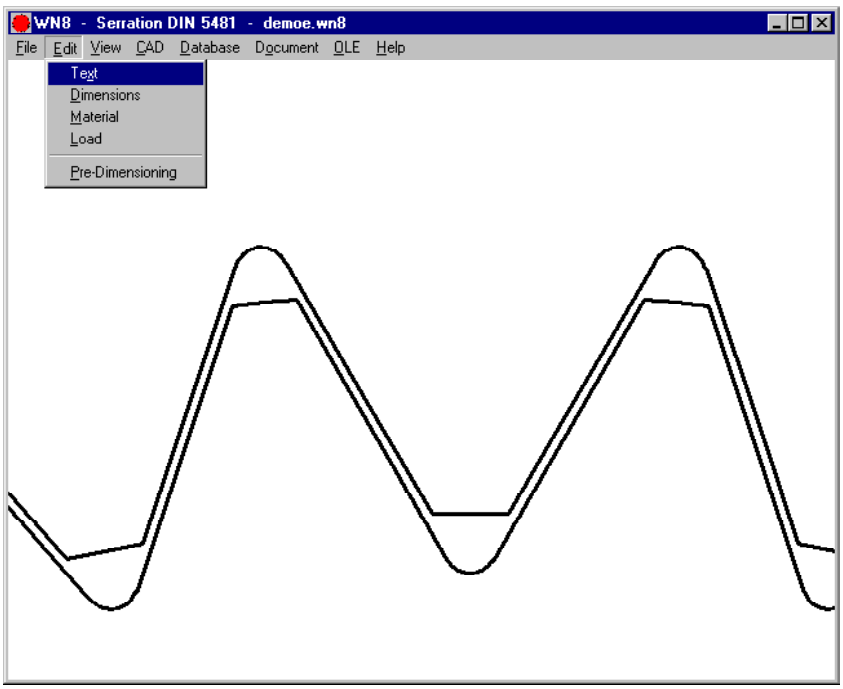
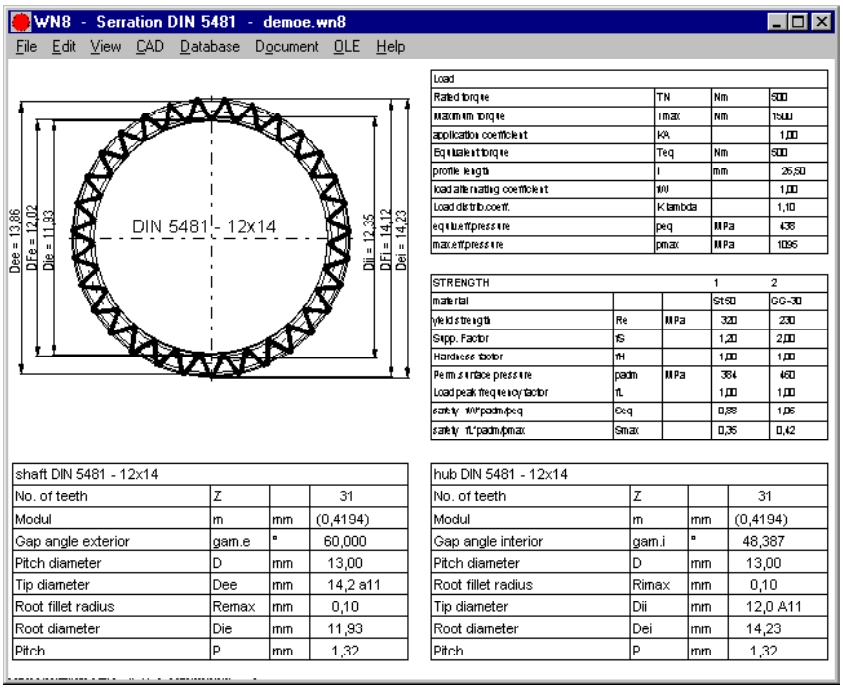




Calculation of Serration Splines to DIN 5481
WN8 calculates dimensions, tolerances and load bearing capacity of serrations with straight flanks according to DIN 5481. A true-scale drawing of the spline is generated by WN8 and may be exported as CAD file. Dimensions and material data are loaded from the integrated material database.

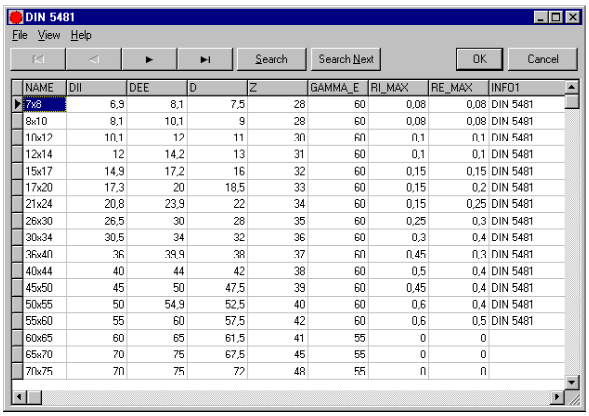
Pre-Dimension
In Pre-Dimension, WN8 calculates a suitable spline size for the required transferable torque.

Dimensions
Standard sizes to DIN 5481 may be selected from integrated database. Or you can enter the dimensions for self-defined serration splines.

Tolerances
WN8 calculates tolerances for tolerance class fine or coarse according to DIN 5481.

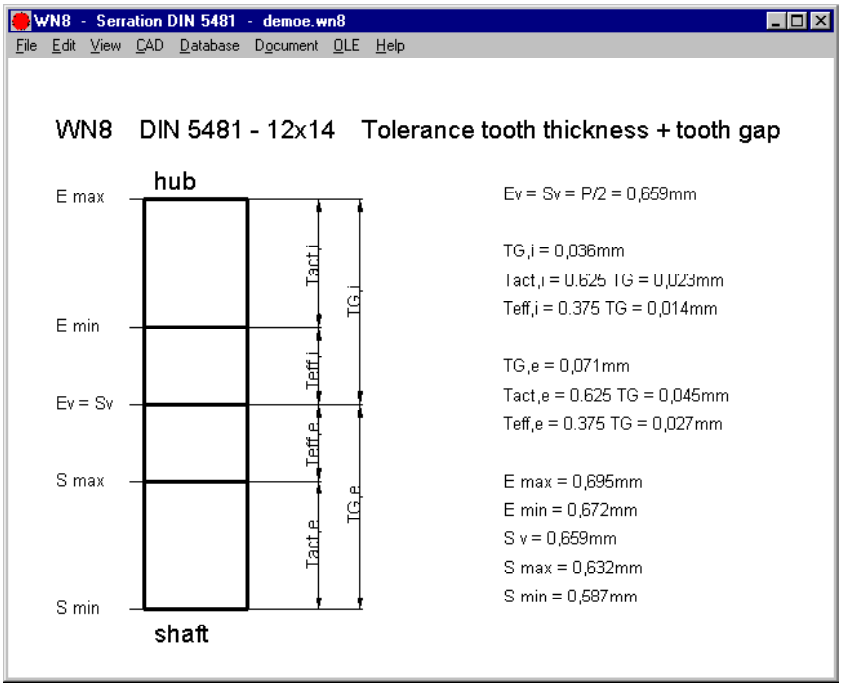
Quick View
Profile drawing and tables with most important dimensions and results on one screen.

Profile Database
Profile database includes all sizes of DIN 5481. Database may be extended by the user.



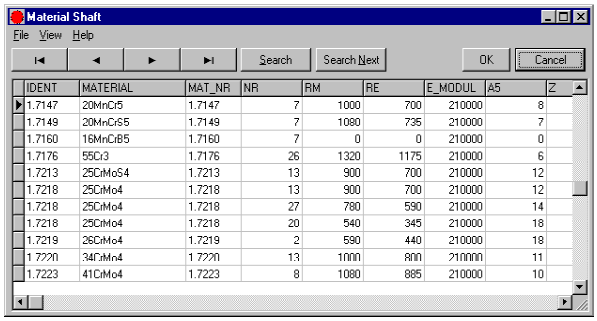
NAME	DII	DEE	D	Z	GAMMA_E	RI_MAX	RE_MAX	INFO1
7x8	6,9	8,1	7,5	28	60	0,08	0,08	DIN 5481
8x10	8,1	10,1	9	28	60	0,08	0,08	DIN 5481
10x12	10,1	12	11	30	60	0,1	0,1	DIN 5481
12x14	12	14,2	13	31	60	0,1	0,1	DIN 5481
15x17	14,9	17,2	16	32	60	0,15	0,15	DIN 5481
17x20	17,3	20	18,5	33	60	0,15	0,2	DIN 5481
21x24	20,8	23,9	22	34	60	0,15	0,25	DIN 5481
26x30	26,5	30	28	35	60	0,25	0,3	DIN 5481
30x34	30,5	34	32	36	60	0,3	0,4	DIN 5481
36x40	36	39,9	38	37	60	0,45	0,3	DIN 5481
40x44	40	44	42	38	60	0,5	0,4	DIN 5481
45x50	45	50	47,5	39	60	0,45	0,4	DIN 5481
50x55	50	54,9	52,5	40	60	0,6	0,4	DIN 5481
55x60	55	60	57,5	42	60	0,6	0,5	DIN 5481
60x65	60	65	61,5	41	55	0	0	
65x70	70	75	67,5	45	55	0	0	
70x75	70	75	72	48	55	0	0	

Units
WN8 may be switched between metric units (mm, N, MPa) and imperial units (in, lbf, psi).



Material Database

Integrated material database includes strength values for the most common steeel materials, and may be modified and extended by the user.



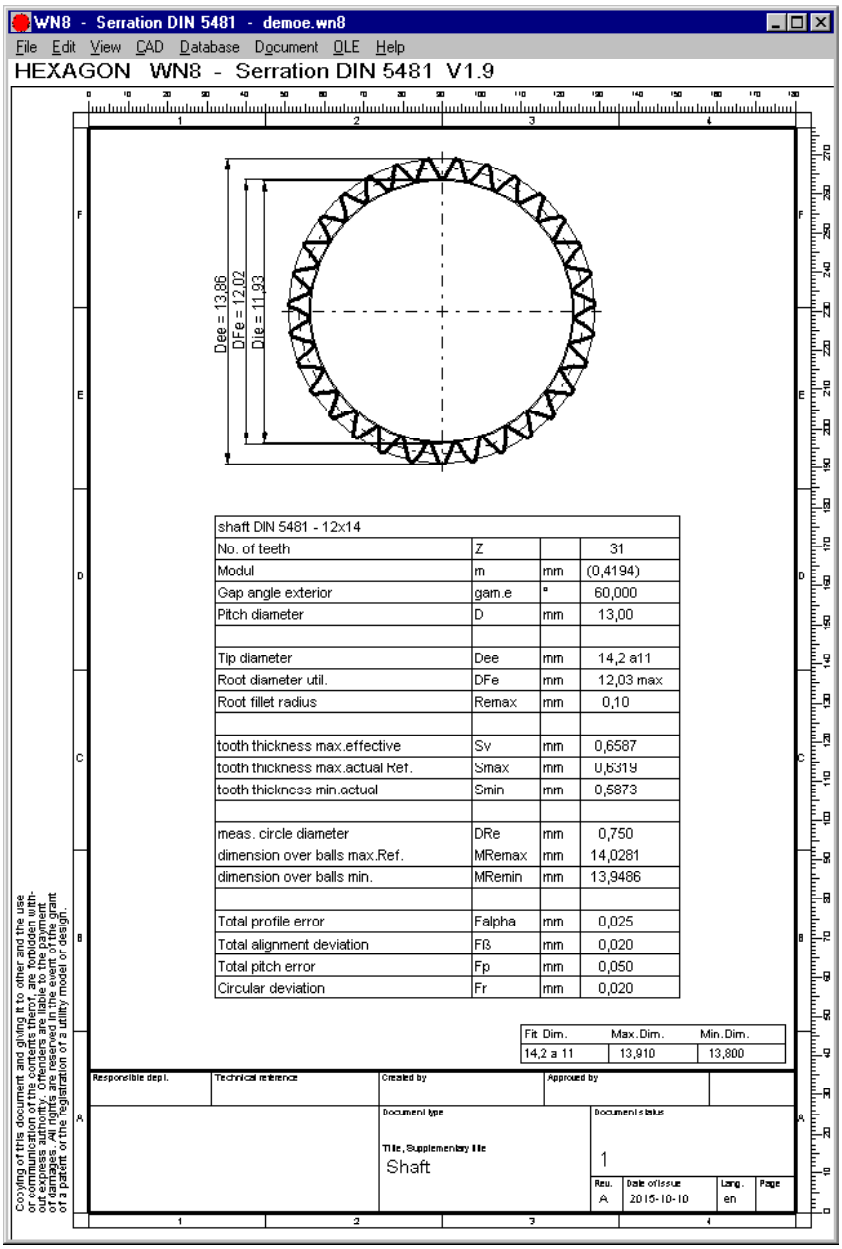
IDENT	MATERIAL	MAT_NR	NR	RM	RE	E_MODUL	A5	Z
1.7147	20MnCr5	1.7147	7	1000	700	210000	8	
1.7149	20MnCrS5	1.7149	7	1080	735	210000	7	
1.7160	16MnCrB5	1.7160	7	0	0	210000	0	
1.7176	55Cr3	1.7176	26	1320	1175	210000	6	
1.7213	25CrMoS4	1.7213	13	900	700	210000	12	
1.7218	25CrMo4	1.7218	13	900	700	210000	12	
1.7218	25CrMo4	1.7218	27	780	590	210000	14	
1.7218	25CrMo4	1.7218	20	540	345	210000	18	
1.7219	26CrMo4	1.7219	2	590	440	210000	18	
1.7220	34CrMo4	1.7220	13	1000	800	210000	11	
1.7223	41CrMo4	1.7223	8	1080	885	210000	10	

Load Bearing Capacity

Safety against bearable flank pressure is calculated according to Niemann/Winter/Höhn and DIN 6882 from torque, material data, application and load type. Application factors and load coefficients can be determined by means of WN8 auxiliary images.

Printout

Calculation results may be printed, saved as HTML table, or directly exported to MS-Excel.



Tables and Drawings

WN8 generates true-scale drawings of shaft and hub profile which may be exported to CAD via DXF or IGES file. Tables with dimensions and tolerances are also generated by WN8.

Production Drawing

WN8 generates a production drawing with tooth profile and dimensions for external spline (shaft) and internal spline (hub). Drawing information and modification index is entered in WN8.

User Interface

The dialogue windows of WN8 allow even the less experienced PC user to find his way around the program quickly. WN8 provides users with a help text wherever they are in the program. When the demo mode is selected, WN8 runs through a demo program in which an example calculation is performed. WN8 contains auxiliary pictures with geometrical signs and formulas used by the program.

System Requirements

WN8 is available as 32-bit app or as 64-bit app for Windows XP, Vista, Windows 7, 8, Windows 10.

Scope of Delivery

WN8 Software with user manual (pdf), example applications and help images, non-expiring license for unlimited time use with update rights.

Software Maintenance

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

Guarantee

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