

# WN6



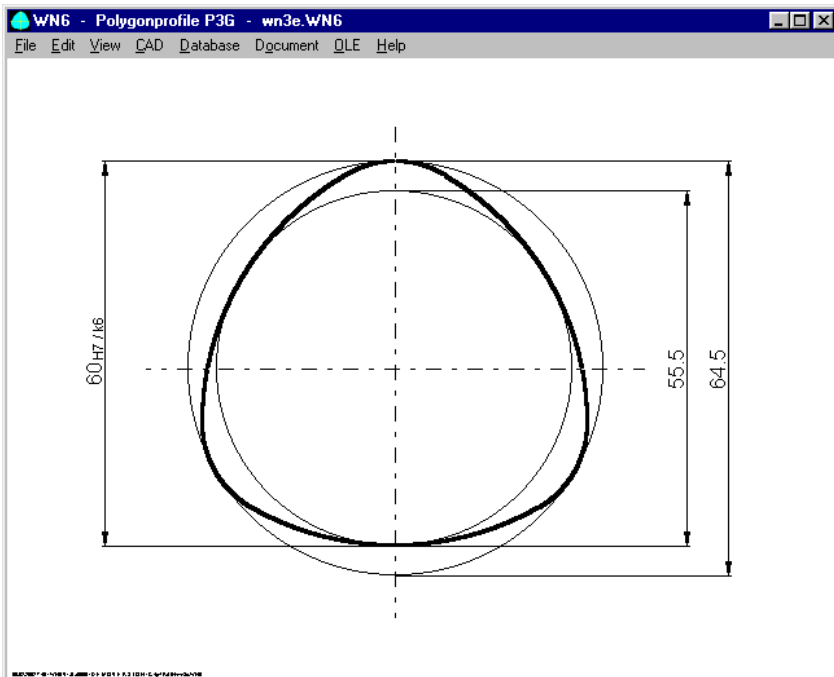
www.hexagon.de

## Software for Polygon Profiles

### P3G according to DIN 32711

for Windows

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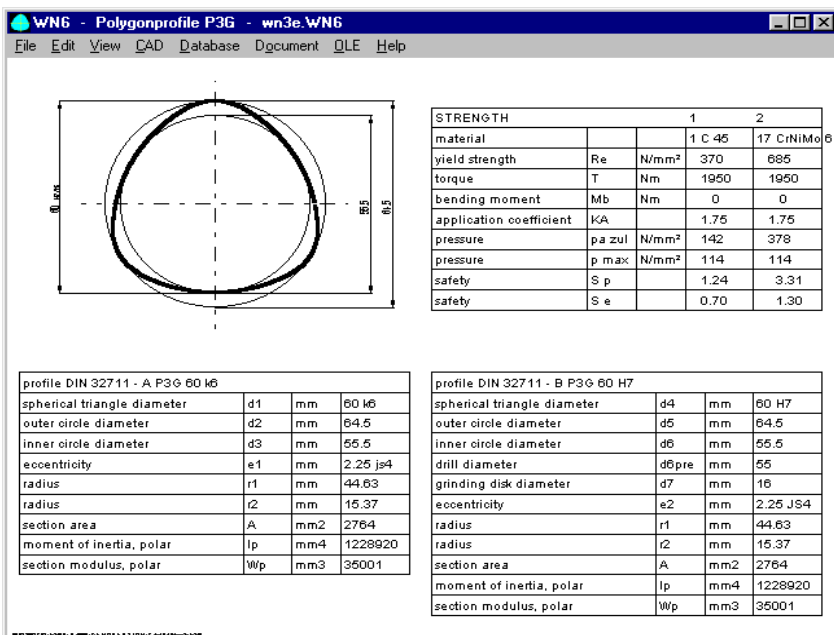
### P3G Calculation

WN6 calculates dimensions, tolerances, stress and safety factors for P3G polygon profiles according to DIN 32711. You can also define special sizes by input of nominal diameter and eccentricity.

### Database

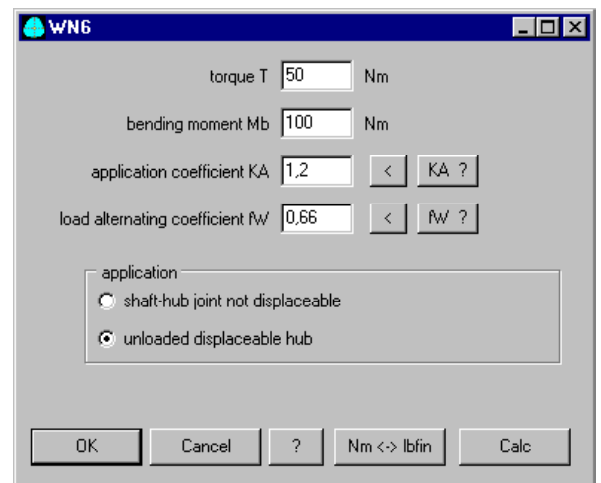
P3G sizes according to DIN 32711 (size 14 mm to 100 mm) can be selected from database. The database may be extended by the user.

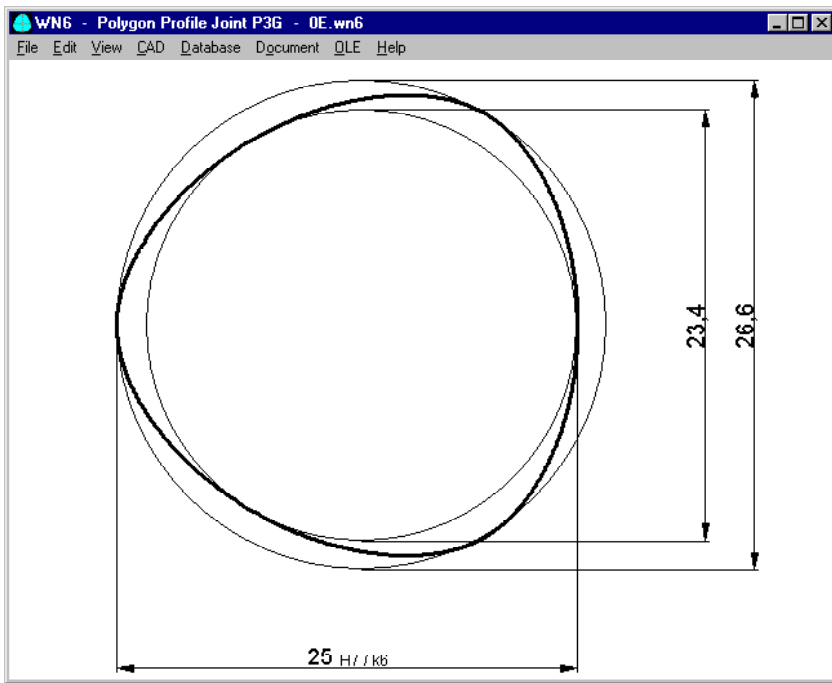
D1_D4	D2_D5	D3_D6	E1_E2	D6PRE	D7	R1	R2	INFO
22	23.4	20.6	0.7	20.3	8	15.55	6.45	
25	26.5	23.4	0.8	23	8	17.7	7.3	
28	29.8	26.2	0.9	25.8	10	19.85	8.15	
30	32	28	1	27.5	10	21.5	8.5	
32	34.24	29.76	1.12	29.4	10	23.28	8.72	
35	37.5	32.5	1.25	32.1	10	25.63	9.37	
40	42.8	37.2	1.4	38.8	13	29.1	10.9	
45	48.2	41.8	1.6	41.4	13	32.9	12.1	
50	53.6	46.4	1.8	46	16	36.7	13.3	
55	59	51	2	50.5	16	40.5	14.5	
60	64.5	55.5	2.25	55	16	44.63	15.37	
65	69.9	60.1	2.45	59.6	20	48.43	16.57	
70	75.6	64.4	2.8	63.9	20	53.2	16.8	



### Pre-Dimensioning

Enter torque, select material and application: WN6 calculates minimum size required for a P3G shaft-hub joint.





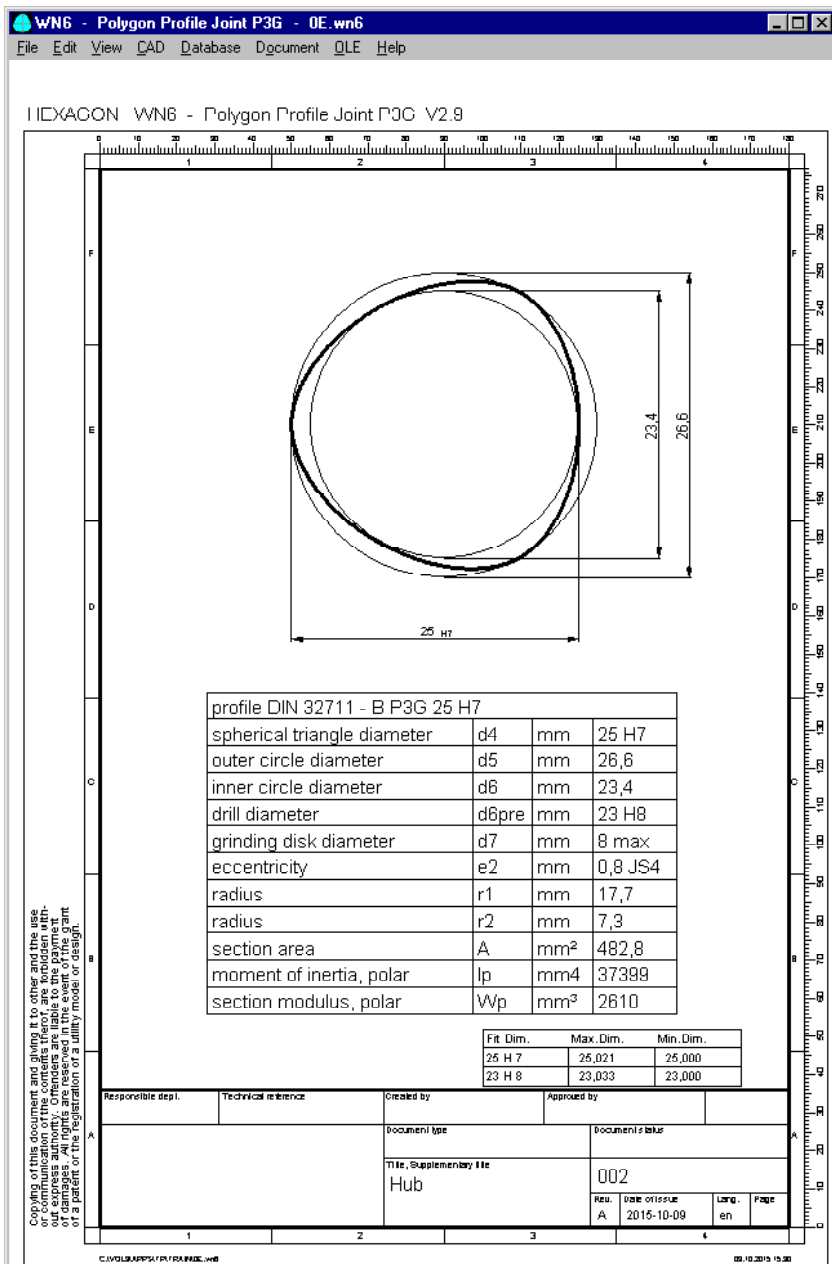
## Strength Calculation

WN6 calculates compressive stress, torsional stress, bending stress, and equivalent stress according to DIN 32711 and DIN 6892. Material, application factors and life expectation coefficients are considered in the calculation.

## Material Database

Materials for shaft and hub can be selected from the integrated material database with 900 steel and non-iron materials.

IDENT	MATERIAL	MAT_NR	NR	RM	RE	E_MODUL	A5	Z
1.0971	S260NC (QStE260N)	1.0971	1	370	260	210000	30	
1.0972	S315MC (QStE300TM)	1.0972	1	400	315	210000	27	
1.0973	S315MC (QStE300TM)	1.0973	1	400	315	210000	27	
1.0974	S340MC (QStE340TM)	1.0974	1	420	340	210000	25	
1.0975	S340MC (QStE340TM)	1.0975	1	460	340	210000	27	
1.0976	S355MC (QStE360TM)	1.0976	1	450	355	210000	23	
1.0977	S355MC (QStE360TM)	1.0977	1	480	355	210000	25	
1.0978	S380MC (QStE380TM)	1.0978	1	450	380	210000	23	
1.0979	S380MC (QStE380TM)	1.0979	1	500	380	210000	25	
1.0980	S420MC (QStE420TM)	1.0980	1	480	420	210000	19	
1.0981	S420MC (QStE420TM)	1.0981	1	530	420	210000	23	
1.0982	S460MC (QStE460TM)	1.0982	1	520	460	210000	19	
1.0983	S460MC (QStE460TM)	1.0983	1	550	460	210000	21	



## Production Drawing

P3G dimension table together with P3G profile in an ISO 7200 drawing header may be printed directly, or exported to CAD via DXF-/IGES interface. Drawing name, date, users and modifications are described in WN6.

## CAD Interface

WN6 generates a true scale P3G profile as DXF or IGES file to be used in CAD or CNC system. Resolution and tolerances can be configured.

## User Interface

The dialogue windows of WN6 allow even the less experienced PC user to find his way around the program quickly. WN6 provides users with a help text wherever they are in the program. When the demo mode is selected, WN6 runs through a demo program in which an example calculation is performed. WN6 contains auxiliary pictures with geometrical signs and formulas used by the program.

## System Requirements

WN6 is available as 32-bit app or as 64-bit app for Windows 7, 8, Windows 10.

## Scope of Delivery

WN6 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.