by Fritz Ruoss

WL1+: Help regarding the message "Minimum length xi->xi+1!"
No help information was displayed for the error message "Minimum length xi->xi+1!".
By default, the shaft is divided into 1,000 segments for the calculation. This error message occurs when a narrow groove or chamfer falls between the grid points. In this case, increase the number of segments—for example, to 5,000—based on the ratio of shaft length to groove width.

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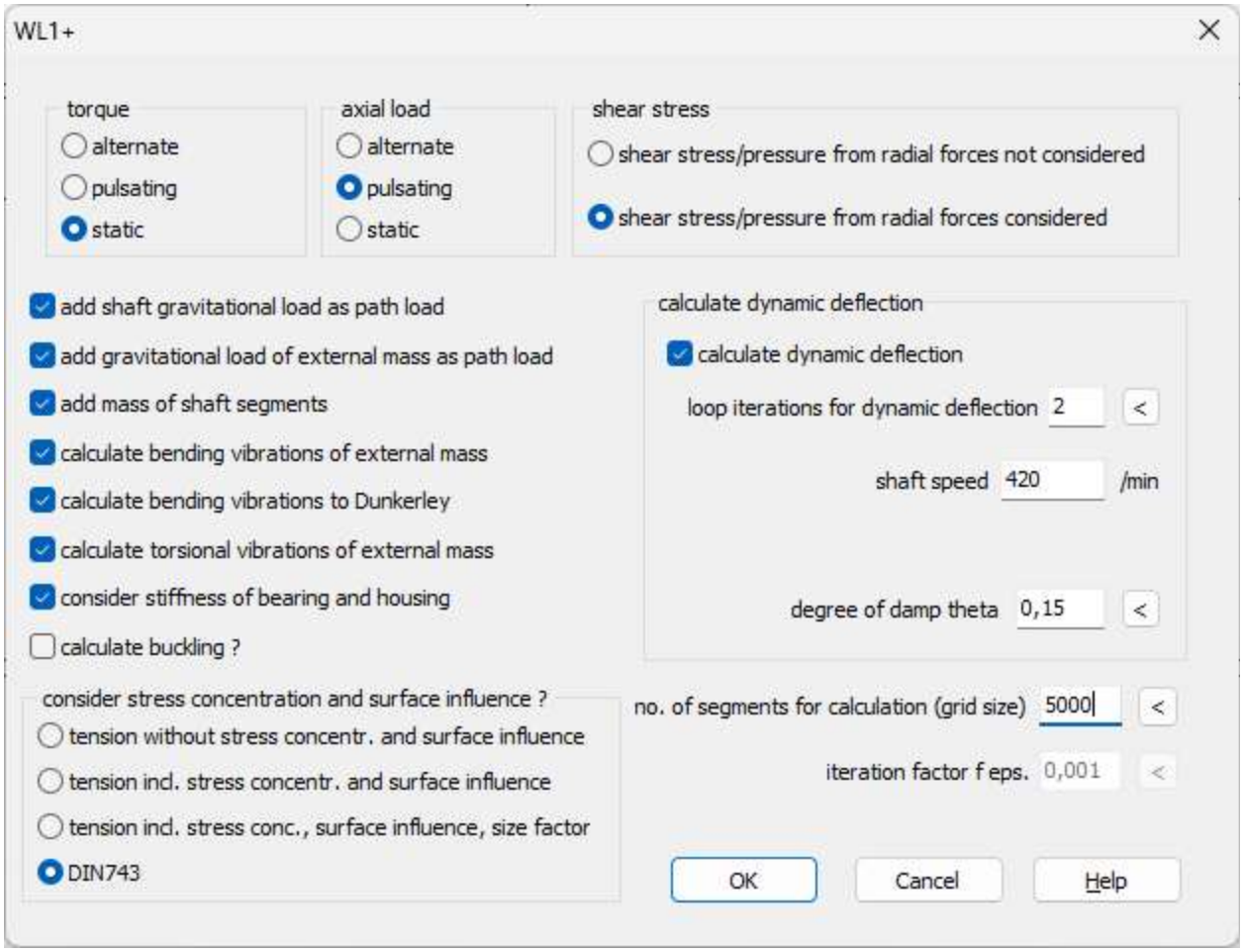
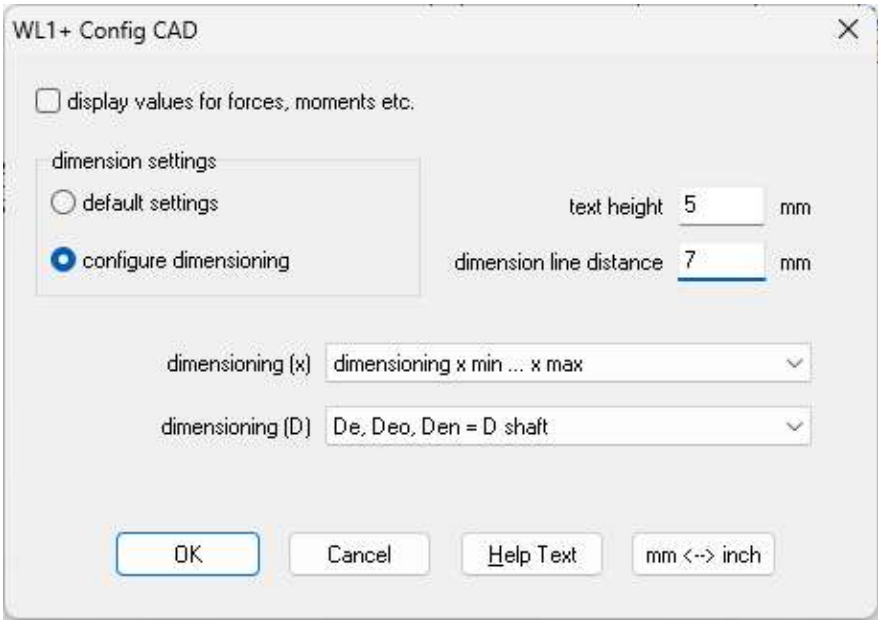
minimum length x1->x2 !
Origin: The calculation divides the shaft into 1000 segments.
If for example, a shaft segment is smaller, then it won't be taken into account during calculation.
Remedy: Increase number of shaft segments (min. total shaft length / notch width).

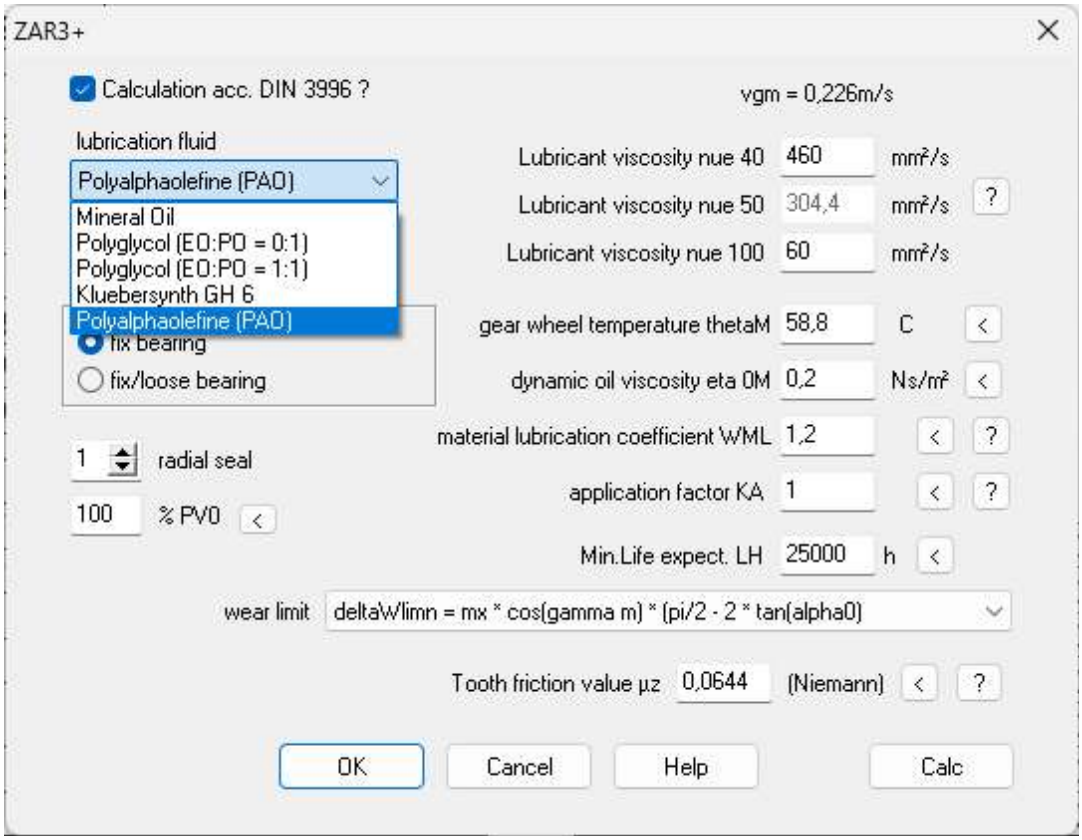


WL1+: Configure Dimensioning

For long shafts with narrow grooves or chamfers, automatic dimensioning may not always display at the desired size. In such cases, you can change the font size and the spacing of the dimension lines under "CAD\Settings".



ZAR3+: Polyalphaolefins: Calculation of Z Oil, SH, and SW according to DIN 3996



For polyalphaolefins, the factor Z_Oil was set to 0 instead of 0.94, erroneously resulting in SH=0. Because polyalphaolefins were not included in DIN 3996:1998, the safety factors SH and SW were calculated as 0 whenever a polyalphaolefin was selected for lubrication. Now, mineral oil data or the DIN 3996:2012 factors are used to obtain a result.

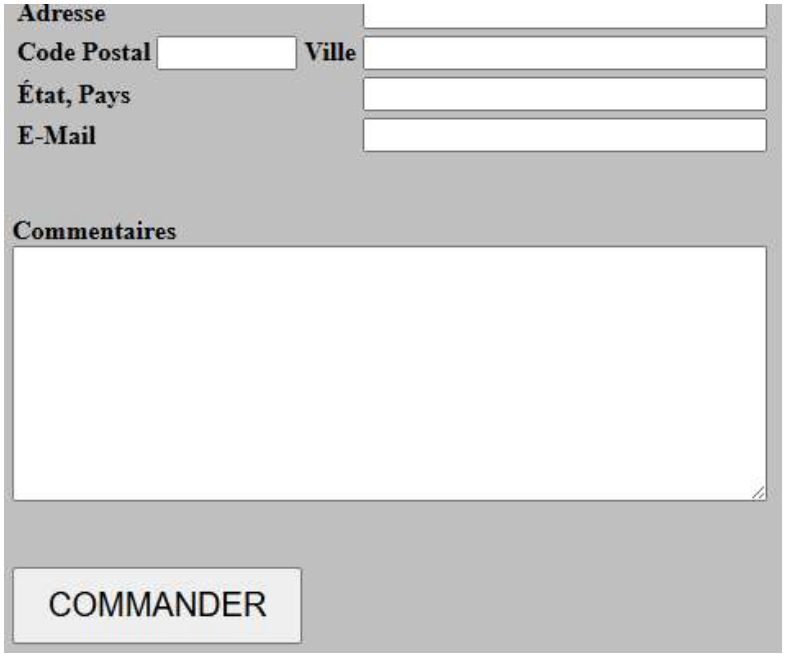
New key codes when changing computer, hard drive, partitions, or Windows
The key code becomes invalid if you install the software on a new PC, replace the hard drive, modify partitions, install a VM within Windows, or if a Microsoft update reduces the physical size of the hard drive.
What to do?
1. Update the license agreement, scan it, and send it as a PDF.
2. Order a new key code for 40 euros (www.hexagon.de/order_d.htm).
3. Delete the code file (e.g., fed1.cod), then launch the program and send the generated key code request.
If your computer has two drives or partitions, do not install HEXAGON software on the Windows partition (C:); install it on drive D: instead. Otherwise, the key code could become invalid again due to future Windows changes.

Installing software on an external hard drive
Alternatively, you can install the software on an external hard drive. This allows you to take the software with you when switching computers, and the hard drive remains unaffected by Windows upgrades and updates.

Installing software on a USB flash drive
If necessary, you can install the software on a USB flash drive instead of an external hard drive, provided the drive has a serial number. A disadvantage of using a USB flash drive is that it can easily be lost or stolen. When installing on a USB flash drive, the temporary directory should be configured on drive C:, as the USB drive is too slow.

Key codes for network versions
Older network versions are tied to the server, whereas newer ones are tied only to the network path. As long as the path remains unchanged, no new key codes are required.

Order form in French
The French order form had not yet been adapted for online ordering via email; this has now been updated.



HEXAGON PRICE LIST 2026-06

Base price for single licences (perpetual)	EUR
DI1 Version 2.2 O-Ring Seal Software	190.-
DXF-Manager Version 9.1	383.-
DXFPLOT V 3.2	123.-
FED1+ V32.2 Helical Compression Springs incl. spring database, animation, relax., 3D,..	695.-
FED2+ V22.9 Helical Extension Springs incl. Spring database, animation, relaxation, ...	675.-
FED3+ V22.1 Helical Torsion Springs incl. prod.drawing, animation, 3D, rectang.wire, ...	600.-
FED4 Version 8.0 Disk Springs	430.-
FED5 Version 17.7 Conical Compression Springs	741.-
FED6 Version 18.7 Nonlinear Cylindrical Compression Springs	634.-
FED7 Version 15.7 Nonlinear Compression Springs	660.-
FED8 Version 7.6 Torsion Bar	317.-
FED9+ Version 7.0 Spiral Spring incl. production drawing, animation, Quick input	490.-
FED10 Version 4.5 Leaf Spring	500.-
FED11 Version 3.6 Spring Lock and Bushing	210.-
FED12 Version 2.7 Elastomer Compression Spring	220.-
FED13 Version 4.4 Wave Spring Washers	228.-
FED14 Version 2.9 Helical Wave Spring	395.-
FED15 Version 1.7 Leaf Spring (simple)	180.-
FED16 Version 1.4 Constant Force Spring	225.-
FED17 Version 2.7 Magazine Spring	725.-
FED19 Version 1.0 Buffer Spring	620.-
GEO1+ V7.5 Cross Section Calculation incl. profile database	294.-
GEO2 V3.4 Rotation Bodies	194.-
GEO3 V4.1 Hertzian Pressure	205.-
GEO4 V5.3 Cam Software	265.-
GEO5 V1.0 Geneva Drive Mechanism Software	218.-
GEO6 V1.0 Pinch Roll Overrunning Clutch Software	232.-
GEO7 V1.0 Internal Geneva Drive Mechanism Software	219.-
GR1 V2.2 Gear Construction Kit Software	185.-
GR2 V1.4 Eccentric Gear Software	550,-
GR3 V1.3 Cycloidal Gear Software	600,-
HPGL Manager Version 9.1	383.-
LG1 V7.0 Roll-Contact Bearings	296.-
LG2 V3.1 Hydrodynamic Plain Journal Bearings	460.-
SR1 V25.5 Bolted Joint Design	640.-
SR1+ V25.5 Bolted Joint Design incl. Flange calculation	750.-
TOL1 V12.0 Tolerance Analysis	506.-
TOL2 Version 4.1 Tolerance Analysis	495.-
TOLPASS V4.1 Library for ISO tolerances	107.-
TR1 V6.5 Girder Calculation	757.-
WL1+ V21.9 Shaft Calculation incl. Roll-contact Bearings	945.-
WN1 V12.4 Cylindrical and Conical Press Fits	485.-
WN2 V11.6 Involute Splines to DIN 5480	250.-
WN2+ V11.6 Involute Splines to DIN 5480 and non-standard involute splines	380.-
WN3 V 6.0 Parallel Key Joints to DIN 6885, ANSI B17.1, DIN 6892	245.-
WN4 V 6.2 Involute Splines to ANSI B 92.1	276.-
WN5 V 6.2 Involute Splines to ISO 4156 and ANSI B 92.2 M	255.-
WN6 V 4.1 Polygon Profiles P3G to DIN 32711	180.-
WN7 V 4.1 Polygon Profiles P4C to DIN 32712	175.-
WN8 V 2.6 Serration to DIN 5481	195.-
WN9 V 2.4 Spline Shafts to DIN ISO 14	170.-
WN10 V 4.5 Involute Splines to DIN 5482	260.-
WN11 V 2.0 Woodruff Key Joints	240.-
WN12 V 1.2 Face Splines	256.-
WN13 V 1.0 Polygon Profiles PnG	238.-
WN14 V 1.0 Polygon Profiles PnC	236.-
WNXE V 2.4 Involute Splines – dimensions, graphic, measure	375.-
WNXK V 2.2 Serration Splines – dimensions, graphic, measure	230.-
WST1 V 10.2 Material Database	235.-

ZAR1+ V 27.2 Spur and Helical Gears	1115.-
ZAR2 V8.2 Spiral Bevel Gears to Klingelnberg	792.-
ZAR3+ V10.7 Cylindrical Worm Gears	620.-
ZAR4 V6.5 Non-circular Spur Gears	1610.-
ZAR5 V13.1 Planetary Gears	1355.-
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ZAR7 V2.7 Plus Planetary Gears	1380.-
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ZAR9 V1.1 Cross-Helical Screw Gears	650.-
ZARXP V2.6 Involute Profiles - dimensions, graphic, measure	275.-
ZAR1W V2.7 Gear Wheel Dimensions, tolerances, measure	450.-
ZM1.V3.1 Chain Gear Design	326.-
ZM2.V1.1 Pin Rack Drive Design	320.-
ZM3.V1.1 Synchronous Belt Drive Design	224.-

PACKAGES	**EUR**
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HEXAGON Mechanical Engineering Base Package (ZAR1+, ZAR3+, ZAR5, ZAR6, WL1+, WN1, WST1, SR1+, FED1,+, FED2+, FED3+)	4,900.-
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HEXAGON Complete Spring Package (FED1+, FED2+, FED3+, FED4, FED5, FED6, FED7, FED8, FED9+, FED10, FED11, FED12, FED13, FED14,, FED15, FED16, FED17, FED19)	4,985.-
HEXAGON Tolerance Package (TOL1, TOL1CON, TOL2, TOLPASS)	945.-
HEXAGON Complete Package (All Programs)	14,950.-

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- **French**: FED1+, FED2+, FED3+, FED4, FED5, FED6, FED7, FED9+, FED10, FED13, FED14, FED15, TOL1, TOL2.
- **Italiano**: FED1+, FED2+, FED3+, FED4, FED5, FED6, FED7, FED9+, FED13, FED14, FED17.
- **Swedish**: FED1+, FED2+, FED3+, FED5, FED6, FED7.
- **Portugues**: FED1+, FED17
- **Spanish**: FED1+, FED2+, FED3+, FED17

Updates:
Software Update Windows: 40 EUR, Update Win64: 50 EUR
Update Mechanical Engineering Package: 800 EUR, Update Complete Package: 1200 EUR

Hexagon Software Network Licenses
Floating License in the time-sharing manner by integrated license manager.

Conditions for delivery and payment
Delivery by Email or download (zip file, manual as pdf files): EUR 0.
General packaging and postage costs for delivery on CD: EUR 60, (EUR 25 inside Europe)
Conditions of payment: bank transfer in advance with 2% discount, or PayPal (paypal.me/hexagoninfo) net.
After installation, software has to be released by key code. Key codes will be sent after receipt of payment.
Fee for additional key codes: 40 EUR

HEXAGON Industriesoftware GmbH E-Mail: info@hexagon.de Web: www.hexagon.de