FED2+ Tolerance L0 for extension springs with coil spacing
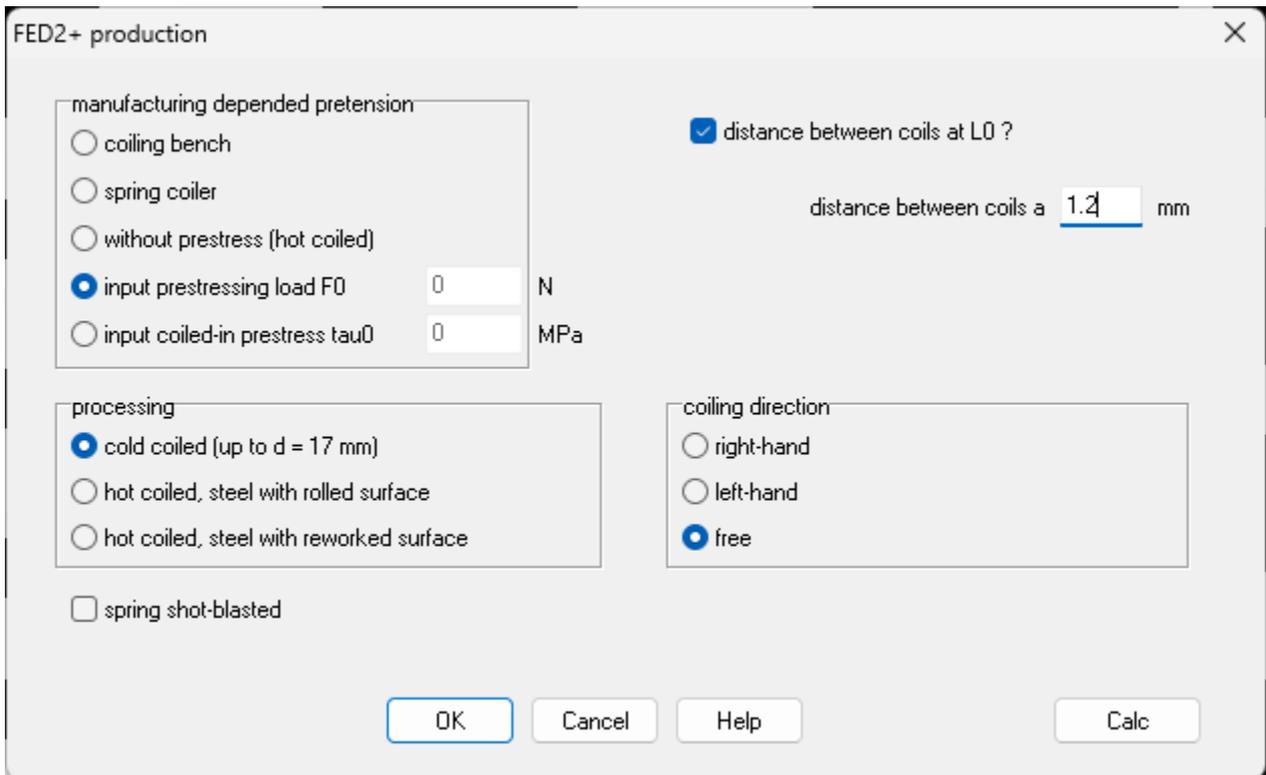
For the rare case of tension springs with coil spacing, the spring length tolerance had not been calculated according to DIN 2097. This has now been corrected. The tolerance of the spring length L0 is significantly larger for tension springs with coil spacing than for extension springs with coils close together (a=0).

To calculate extension springs with coil spacing, first check the box under Edit\Manufacturing and enter the coil spacing a. The preload is then automatically set to 0. The tolerance of the spring length L0 for tension springs with coil spacing is calculated as follows:

Tol L0 (a>0) = af*kf*Q/c + tol L0 (a=0) in quality grade 1.

For extension springs with coils close together, nothing changes.

ZAR3+ manufacturing drawing: Manually enter dimension factor

Normally, the manufacturing drawing is automatically dimensioned to the correct size. If the dimensions are too large or too small, a dimension factor can now also be entered under "CAD\ Settings Dim Scale".

WN10 – Dimension over teeth or span measurement

DIN 5482 only specifies the dimension over pins Mi for maximum and minimum dimensions. Therefore, the span width cannot be specified as an alternative, OPD cannot be switched off. This is only possible if the tolerance system according to DIN 5480 has been selected beforehand.

ZAR3+ Warning „db2 > 2a-da1 !"

The error message "db2 > 2a-da1 !" appears when the worm gear tooth tip can fall into the root recess of the worm wheel. A customer noticed that the error message only appears when $(2*a0-da[1])/db[2] < 0.98$, i.e., when more than 2% is in the critical zone.

Therefore, a warning is now displayed instead of an error message if $(2*a-da1)/db2$ is between 0.98 and 1.

This is usually unproblematic, as the interference pattern clearly shows.
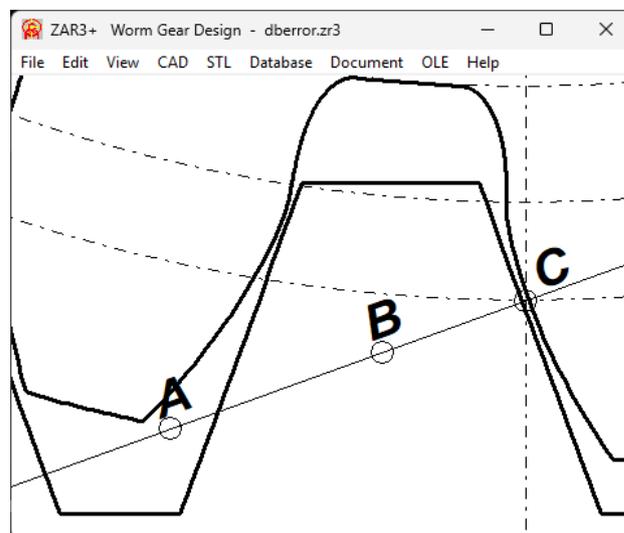
New key codes are subject to a fee.

You need new key codes when changing computers, replacing storage media, or performing Windows updates that affect partition data (disk size of HD).

Procedure:

1. Add the new computer or reason for the change to the license agreement and send it as a PDF.
2. Order key codes for €40 each.
3. Submit your key code request.

HEXAGON PRICE LIST 2026-01-01

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+ V22.8 Helical Extension Springs incl. Spring database, animation, relaxation, ...	675.-
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TOL2 Version 4.1 Tolerance Analysis	495.-
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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.-
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WN6 V 4.1 Polygon Profiles P3G to DIN 32711	180.-
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WNXK V 2.2 Serration Splines – dimensions, graphic, measure	230.-
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Updates:
Software Update Windows: 40 EUR, Update Win64: 50 EUR
Update Mechanical Engineering Package: 800 EUR, Update Complete Package: 1200 EUR

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