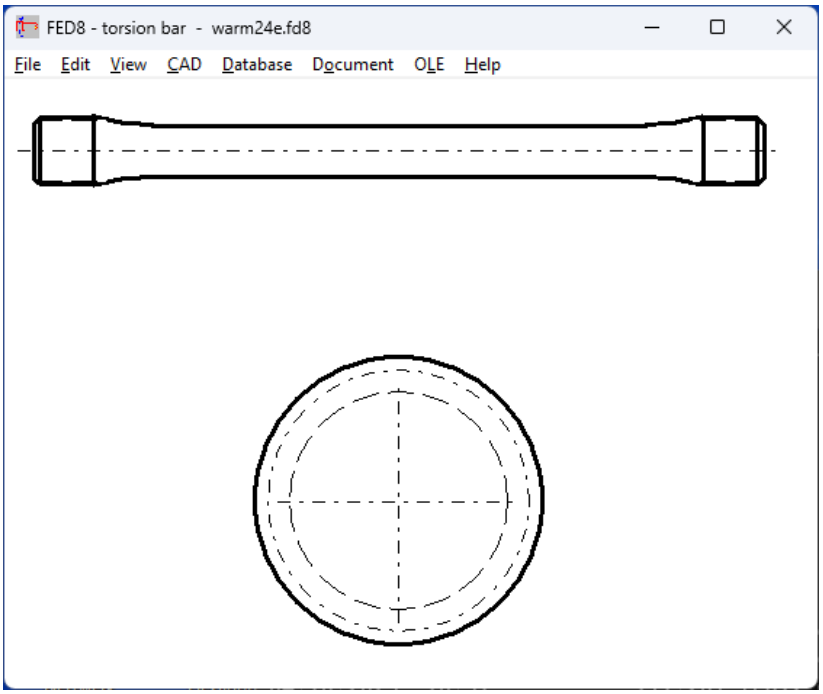
FED8

Software for Calculation of Torsion Bar

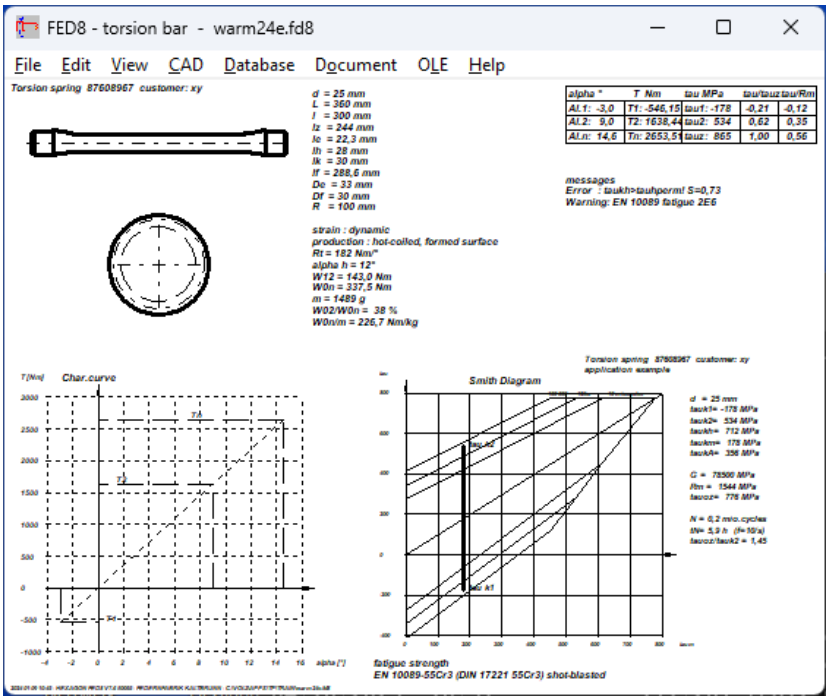
for Windows



Calculation
FED8 calculates torsion angles, torques, shearing stress, spring energy and sliding of torsion bars in accordance with DIN 2091. Characteristic curves and scale drawings can be displayed graphically and exported as DXF files to CAD and DTP software.

Cross-Section
FED8 calculates torsion bars according to DIN 2091. But also torsion bars with rectangular, square, elliptic hollow and ovate cross-section can be calculated.

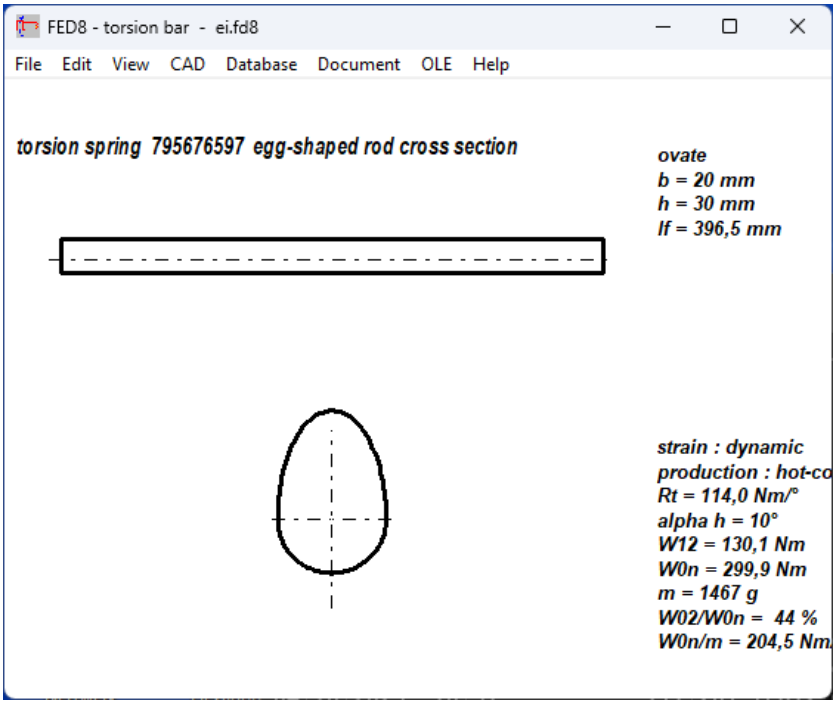
Pre-dimensioning
In pre-dimensioning, one torsion force and the displacement angle are entered, or two torsion forces and the elevation angle are entered. FED8 then calculates an appropriate torsion bar.

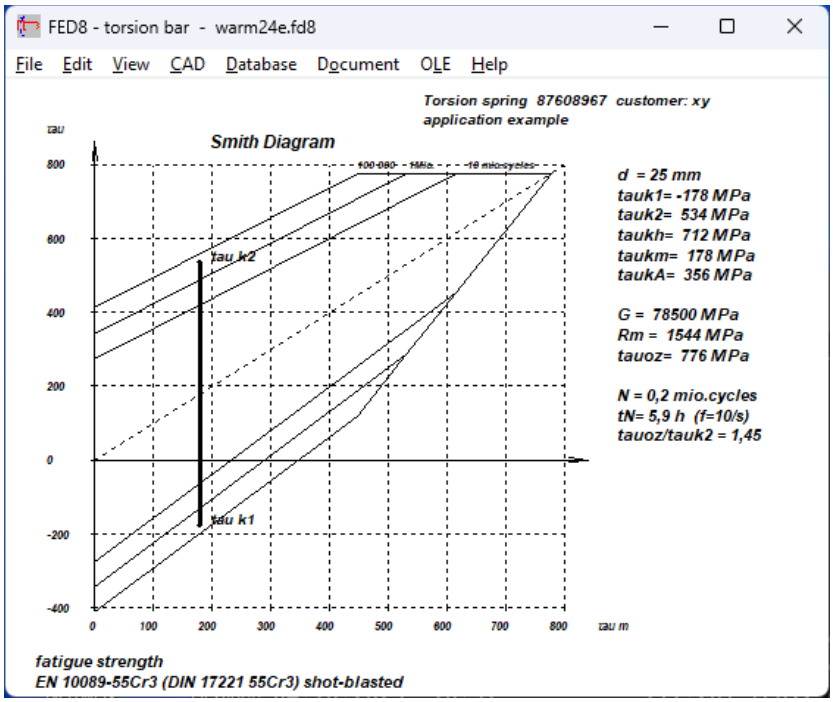


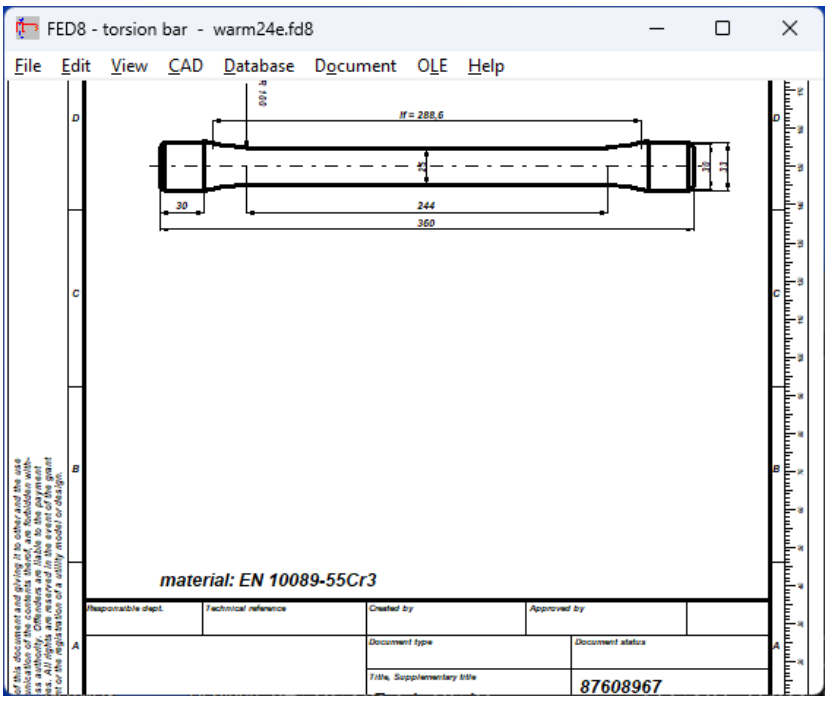
Dimensioning
In dimensioning, FED8 calculates the length of the torsion bar when input torques, elevation angle and bar diameter.

Recalculation
In recalculation all dimensions for the torsion bar are entered and FED8 calculates torques and shear stress for the desired angles.

Printout
The result printout incudes all input and result data. The excerpt shows the most important spring data, abbreviated, on one page. There is also a feature for output of a HTML document for Intranet/Internet. Another option is to generate a TXT table and to run MS Excel and load the results in a worksheet.







Spring Drawing
FED8 generates a true-scale spring drawing in accordance with DIN 2091, which can be exported to CAD via DXF or IGES file.

Diagrams
Spring torque (load) and spring energy are shown as a diagram on screen. The diagrams can be printed or exported to CAD.

Smith Diagram
FED8 draws a Smith diagram with operating zone of your spring and calculates life expectation.

Quick View
The Quick View shows drawings, diagrams and tables altogether on one screen.

Production Drawing
FED8 generates a production drawing with dimensions of the defined spring in an ISO 7200 drawing header.

Material Data Base
The characteristic data of the most important spring materials (tensile strength, perm. shearing stress in relation to bar diameter, shearing modulus, E-modulus, density) is taken by FED8 from the integrated database. The dbf file may be edited and extended by the user.

Help System
You can display a help window for each input value. There are also auxiliary pictures for each symbol used, and calculation formulas. FED8 displays warnings when values are exceeded. For each error message you can display a more detailed description of the error and a remedy suggestion.

System Requirements
FED8 is available as 32-bit app or as 64-bit app for Windows 11 / Windows 10 / Windows 7.

Scope of Delivery
FED8 program with database files, example applications and help images, user manual (pdf), perpetual license for unlimited time use.

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.