L G 2

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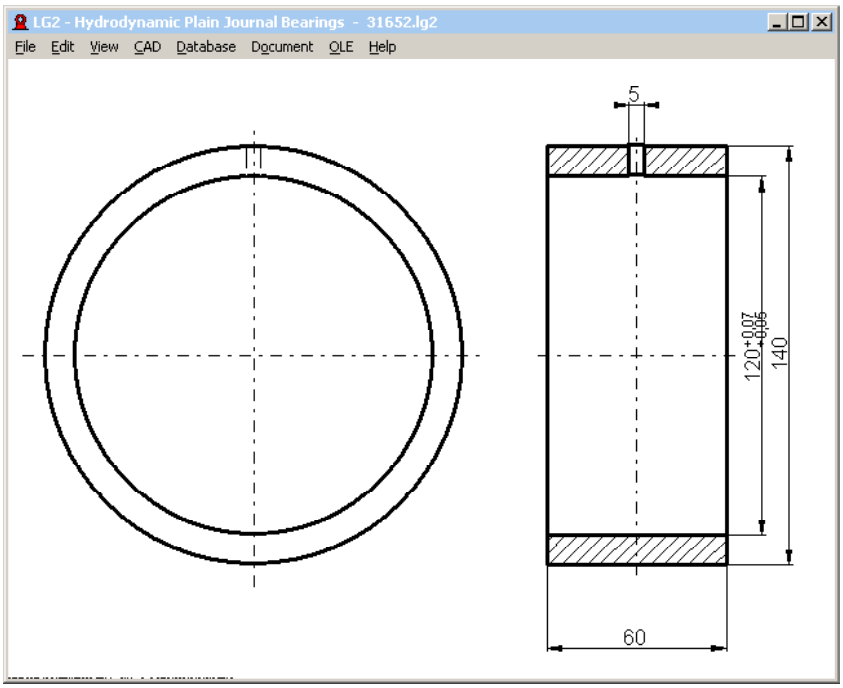
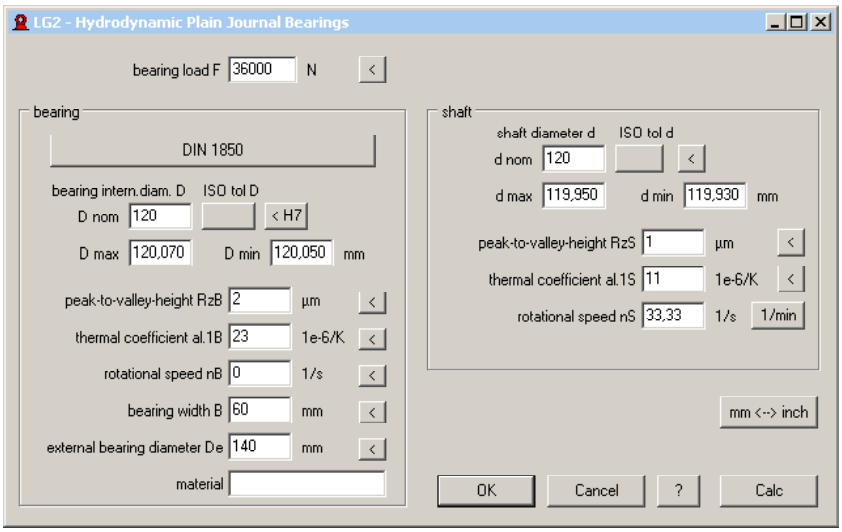
Software für
Hydrodynamic Plain Journal Bearings
according to DIN 31652

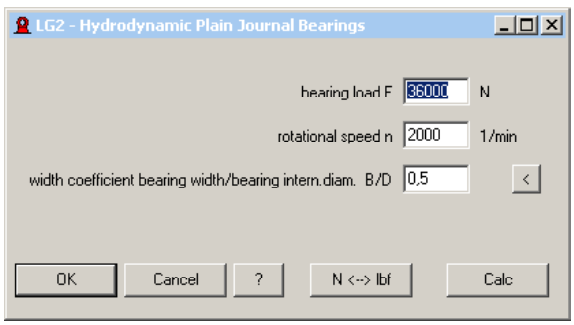
for Windows



Calculation Base

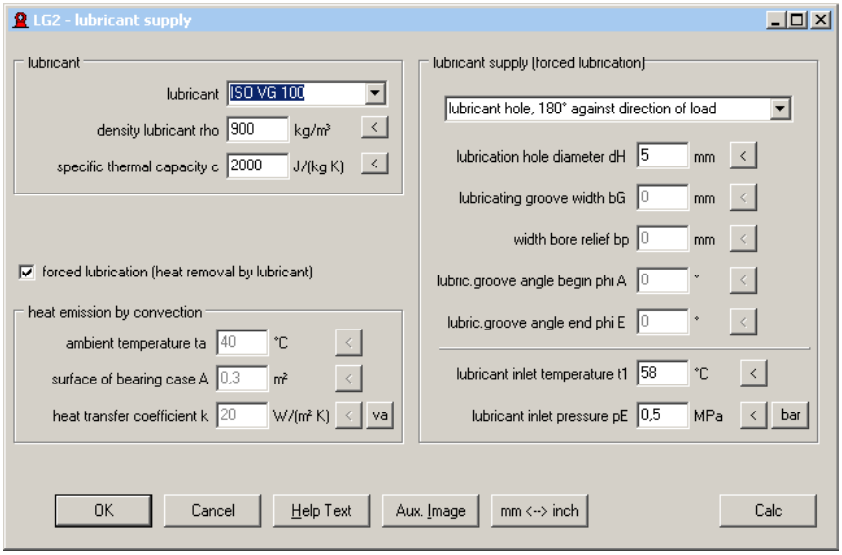
LG2 calculates hydrodynamic plain journal bearings with 360° enclosing angle under steady-state conditions according to DIN 31652. The software calculates self-lubricated bearings under ambient heat flow by convection as well as forced lubrication bearings with heat removal by the lubricant.
Bearing temperature or lubricant outlet temperature are calculated iterative according to DIN 31652 part 1.
LG2 calculates temperature-dependent viscosity of ISO VG lubricants to DIN 51563. Sommerfeld number, friction coefficients, eccentricity, lubricant flow and film thickness are calculated according to DIN 31652 part 2. LG2 suggests limit values for allowable minimum film thickness, surface pressure and bearing temperature according to DIN 31652 part 3.
LG2 calculates ISO tolerances of shaft diameter for optimal bearing clearance according to DIN 31652.

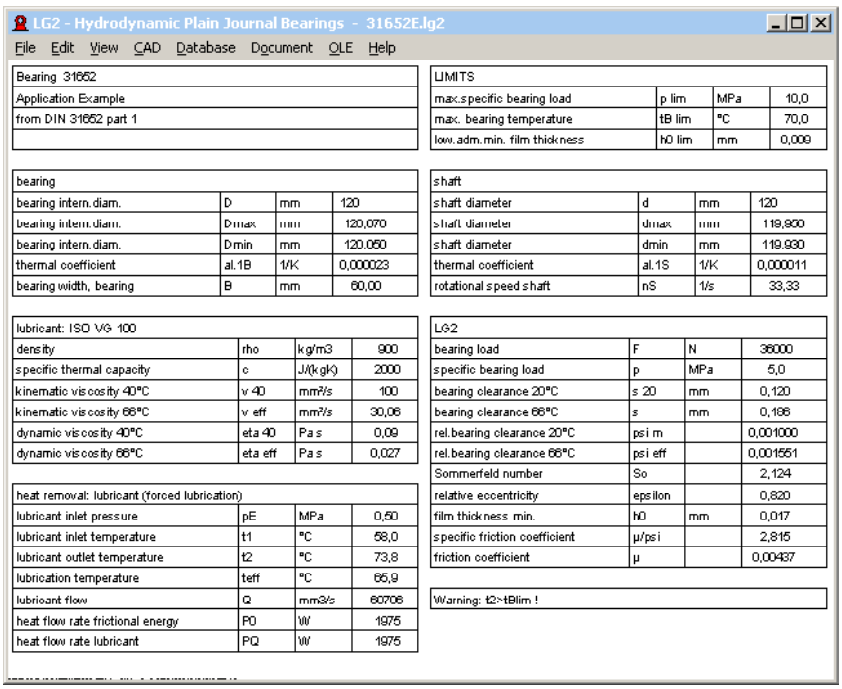


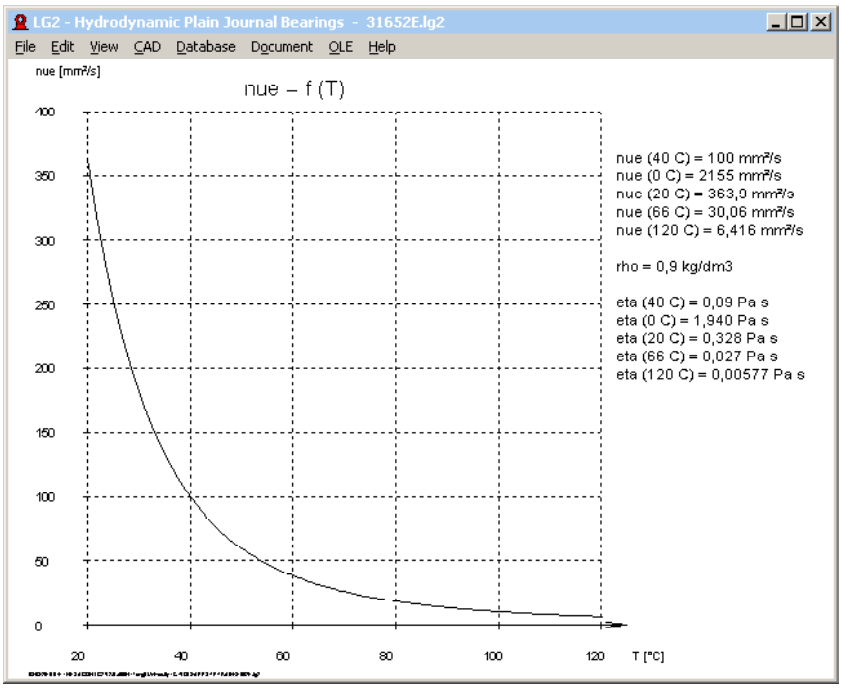


Pre-Dimensioning

Enter only radial load and shaft speed, LG2 calculates dimensions of bearing and shaft, bearing clearance and tolerances. The program selects forced lubrication, if required, and chooses lubricant according to requirements of film thickness and friction.







Re-Calculation
Enter bearing load and dimensions, tolerances, roughness and thermal coefficient of bearing and shaft. LG2 can calculate min and max values of bearing diameter by input of ISO tolerances, and tolerances of shaft diameter from suggested bearing clearance according to DIN 31652.

Lubrication
LG2 handles lubricants ISO VG 2 to ISO VG 1500. If you choose forced lubrication, input of lubrication hole, lubrication groove or lubrication relief is required, as well as lubricant inlet pressure and lubricant inlet temperature. For self-lubricated bearings (heat removal by convection), ambient temperature, surface of bearing case and heat transfer coefficient are required.

Database
Reference values for bearing clearance and admissible minimum lubricant film thickness are included as database, as well as bearing dimensions according to DIN 1850, Type G.

Printout
A table with all input values and calculation results may be printed, saved as text file or HTML file, or exported to Excel.

Quick-View
Quick-View shows tables with most essential data on one page.

Production Drawing
Drawing with bearing dimensions can be saved as DXF or IGES file.

Diagrams
Dynamic and kinematic viscosity of the lubricant as function of temperature is displayed as diagram.

Interfaces
All drawings and diagrams can be saved as DXF or IGES file to be loaded with CAD programs.
The OLE interface of LG2 lets you import/export data from/to Excel.

HEXAGON Help System
Auxiliary text and images are available for all dialogue windows. If error messages occur, you can get description and remedy suggestion.

System Requirements
LG2 is available as 32-bit or 64-bit application for Windows 7, Windows 8, Windows 10.

Scope of Delivery
Program with database files, example applications and help images, user manual (pdf), non-expiring license for unlimited time use with update rights.

Guarantee
HEXAGON gives a 24 month guarantee on full functionality of the software. We provide help and support by email and hotline without extra charge.