T O L 2

Tolerance Analysis Software

for Windows

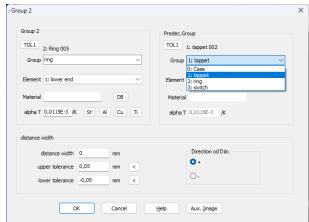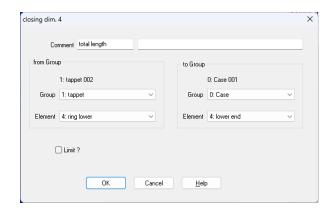TOL2 is used in combination with our TOL1 software. First use TOL1 to define parts and components. In the next step, use TOL2 to assemble the TOL1 components by clicking TOL1 files and defining connection elements and connection tolerances.

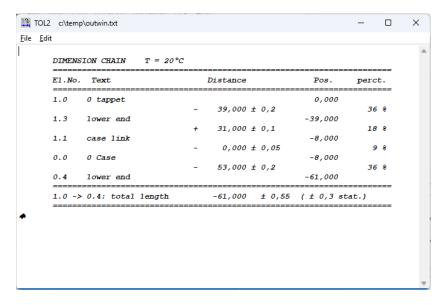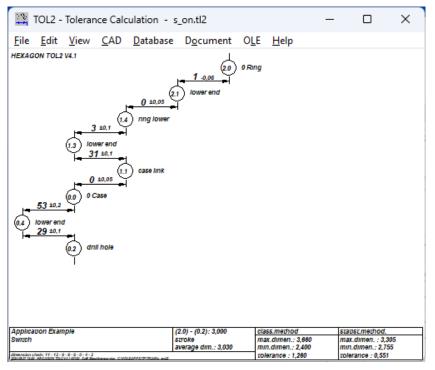

You can define several assembly conditions or switch positions and analyse the requested min/ max values of the closing dimensions.
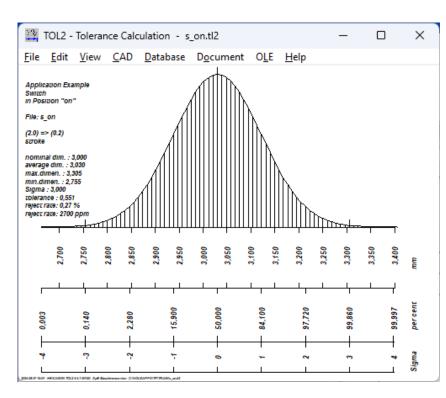
Program Structure

Components from TOL1 are defined by file name and connection element, predecessor part and element, connection dimension and tolerance, in a table. In another table, you define the required closing dimensions.

```
TOL2   c:\temp\outwin.txt                          —  □  ✕
File  Edit

    DIMENSION CHAIN      T = 20°C
    ====================================================
    El.No.   Text                Distance         Pos.      perct.
    ====================================================
    1.0      0 tappet                             0,000
                            -     39,000 ± 0,2                36 %
    1.3      lower end                           -39,000
                            +     31,000 ± 0,1                18 %
    1.1      case link                            -8,000
                                   0,000 ± 0,05                9 %
    0.0      0 Case                               -8,000
                            -     53,000 ± 0,2                36 %
    0.4      lower end                           -61,000
    ====================================================
    1.0 -> 0.4: total length     -61,000   ± 0,55  ( ± 0,3 stat.)
    ====================================================
```


Calculation
TOL2 calculates the maximum and minimum closing dimensions between any desired distance within the dimension chain.

Temperature Influence
Input temperature coefficients for the components, and TOL2 calculates temperature dependant closing dimensions as function of operating tempoerature. Even a formula to calculate temperature dependant closing dimension is given by TOL2.

Cross Reference
You can select a dimension element, and TOL2 lists participated closing dimensions for the selected dimension element.

Statistical distribution methods
The maximum and minimum dimensions in the dimension chain are calculated as the arithmetic sum (worst case), as well as from the square root of the tolerance squares (normal distribution).

Printout
Input data and calculation results with spring travel, spring length, spring load and stresses for different spring positions may be printed, saved as text or HTML file, or exported to MS Excel.

Production Drawing
TOL2 generates a production drawing with drawing elements and closing dimensions. Drawing name, date, users and modifications are described in TOL2.

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

CAD Interface
All drawings and diagrams can be saved as DXF or IGES file to be loaded with CAD programs.

Export Formats
DXF, IGES, HTML, TXT, DBF, Excel, TL2.

Import Formats
TXT, DBF, Excel, TL1, TL2.

System Requirements
TOL2 is available as 32-bit app or as 64-bit app for Windows 11, Windows 10, Windows 7. TOL2 is used in combination with the HEXAGON TOL1 Software.

Scope of Delivery
Program with user manual (pdf), example applications and help images, non-expiring perpetual license.

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