



Features of GearSoft

- ✓ User friendly 32-bit software under Windows.
- ✓ Large amount of data per unit is captured resulting in high accuracy.
- ✓ Digital Filters are employed to eliminate noise.
- ✓ Time to check individual gear is reduced with simple operation.
- ✓ Online graph plotting, error & DIN, AGMA or JIS Class display on screen.
- ✓ Complete report with analysis (As per DIN standards).



Features of GearSoft

- ✓ Standard, Crowning, K-Chart type Evaluation of Gear.
- ✓ Four teeth's of a gear can be tested for lead & profile with report.
- ✓ Automatic saving, retrieving & viewing of Gear parameters.
- ✓ Automatic & Manual mode for selecting scales of graphs (magnification).
- ✓ Active Profile Length (With SAP & EAP & Chamfer Cuts) calculations.



Features of GearSoft

- ✓ User changeable Evaluation Range.
- ✓ User specified (SAP, PCD, EAP & OD) marks with actual Positions on the screen graphs & print reports.
- ✓ Sequential saving & erasing of graphs as well as viewing of graphs in variable magnification.
- ✓ Out of limit Errors and Classes are displayed in different colors.
- ✓ Graphs can be stored & retrieved temporarily or permanently as per user specifications in a powerful database.



Features of GearSoft

- ✓ Emailing of graphs and storing of graph reports in graphics file format.
- ✓ Powerful Data Backup and Data Restore Facility.
- ✓ Report on a high-resolution color or black & white Jet printer-plotter.
- ✓ All the graphs for a single gear are plotted & analysis is presented on single paper or different papers.
- ✓ Machine related user specified operator input error checks.



➤ Main Screen

The screenshot shows the 'Gear Data' window in GearSoft. It includes a 'Component Type' section with 'Type' set to 'Gear' and 'Shaving Cutter' unselected. The 'Component No.' is '11'. There are buttons for 'Show Data', 'New Data', 'Edit Data', and 'Delete Data'. A 'Next' button is at the bottom. Below the window are tabs for 'Component Information', 'Profile Information', 'Gear Information', and 'Helix Information'. A prompt at the bottom says 'Enter Component No. upto 20 chars.'

Field Name	Value
Type	Gear
Component No.	11
Component Name	11
Gear Type	Spur
Face Width	30
Module	2
Number of Teeth	20
Pressure Angle (Decimal)	20
Outer Diameter	65
End Diameter	65
End of Active Profile	65
Pitch Circle Diameter	60
S.A.P. Diameter / Form Diameter	58
Start Diameter	57
Base Circle Diameter	55.382
Active Profile Length (Rad Length)	6.8
Start of Active Profile (Rad Length)	3.27
Correction Factor	0
Span Measurement	0 Dia 0 Teeth
Ball Diameter	0

GearSoft Data Entry Screen



> Component Information Screen

Gear Information

Component No.: 112

Component Name: Gear

Type: Gear

Gear Type: Spur Helical L.H. R.H.

Face Width: 25 mm DP: mm 10

Module: 2.54 mm

No of Teeth: 35

Pressure Angle: 20° 0' 0"

Helix Angle: 15° 0' 0"

Base Helix Angle: 14° 4' 34"

I.D.H.A.: 14° 4' 34"

MODULE P = MODULE
DIAMETRAL PITCH P = DIAMETRAL PITCH

Previous Next

Component Type: Gear Information

Component Information Profile Information Helix Information

Enter Module in mm.

About GearSoft Data Entry Screen

> Profile Information Screen

Profile Information

Outer Diameter: 112 Dia: 88 mm

End Diameter: 111.5 Roll Deg: 11.84°

E.A.P.: 111 Trace: 9.034 mm

P.C.D.: 22.036

S.A.P. Dia / Form Dia: 88

Start Diameter: 87

B.C.D.: 86.125

A.P.L. (Roll Length): 25.98

S.A.P. (Roll Length): 9.03

Total Roll Length: 35.01

Correction Factor: 1

Span Measurement: 2.54 On 3 Teeth

Ball / Roller Diameter: 2.1

Over Ball Dimension: 115.4

NOMENCLATURE OF PROFILE

Previous Next

Component Information Profile Information Helix Information

Enter Form Diameter in mm.

About GearSoft Data Entry Screen

> Helix Information Screen

Helix Information

Type of Lead: Standard Intermediate Cluster

Lead Measurement: Top To Bottom Bottom To Top

Length of Chamfer Cut Top: 1

Length of Chamfer Cut Bottom: 1

Lead Measurement Start: 1

Lead Measurement End: 28

LEAD WITH CHAMFER CUTS

Previous Next

Component Information Profile Information Helix Information

Enter Length of Top Chamfer Cut.

About GearSoft Data Entry Screen

> Helix Crowning Selection Screen

Helix Crowning Selection

No Crowning Crowning

Crowning

Top PLUS With Crowning

Top MINUS With Crowning

Hollow Crowning

Top PLUS With Hollow Crowning

Top MINUS With Hollow Crowning

K Graph

LEAD WITH CROWNING - RH

Previous Next

Helix Crowning Selection Crowning Relief Special Crowning K Graph

Helix Crowning Profile Crowning

Select Helix Crowning.


About GearSoft Data Entry Screen

> Helix Relief Screen

Crowning Data

Top Relief
 Amount of Relief: 12 Tol. ± 2
 Length of Relief: 5 Tol. ± 2

Bottom Relief
 Amount of Relief: 10 Tol. ± 3
 Length of Relief: 4 Tol. ± 2



LEAD WITH TOP & BOTTOM RELIEF - RH

Previous Next

Helix Crowning Selection Crowning Relief Special Crowning K Graph

Helix Crowning Profile Crowning

Enter Bottom Length of Relief Tolerance Value.

About GearSoft Data Entry Screen



> Helix K-Graph Screen

Crowning Data

Helix K Graph
 A1: A2: A3: A4: A5:
 5 6 4 5 6

R1: R2: R3: R4:
 2 3 2 3



LEAD CROWNING WITH K-GRAPH - RH

Previous Next

Helix Crowning Selection Crowning Relief Special Crowning K Graph

Helix Crowning Profile Crowning

Enter Length Value of K Graph.

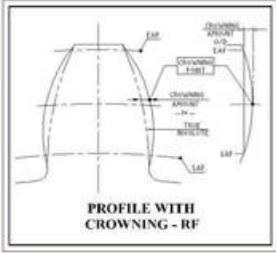
About GearSoft Data Entry Screen



> Profile Crowning Screen

Crowning Data

Crowning
 Amount of Crowning: 10 Tol. ± 2
 Crowning Point: 9 Tol. ± 1



PROFILE WITH CROWNING - RF

Previous Next

Profile Crowning Selection Crowning Relief Special Crowning K Graph

Helix Crowning Profile Crowning

Enter Crowning Point Tolerance Value.

About GearSoft Data Entry Screen

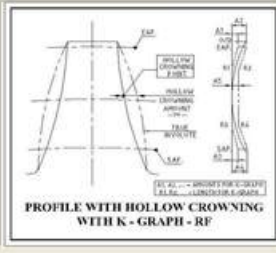


> Profile K-Graph Screen

Crowning Data

Profile K Graph
 A1: A2: A3: A4: A5:
 5 4 3 4 5

R1: R2: R3: R4:
 3 4 4 3



PROFILE WITH HOLLOW CROWNING WITH K-GRAPH - RF

Previous Next

Profile Crowning Selection Crowning Relief Special Crowning K Graph

Helix Crowning Profile Crowning

Enter Length Value of K Graph.

About GearSoft Data Entry Screen



> Profile Relief Screen

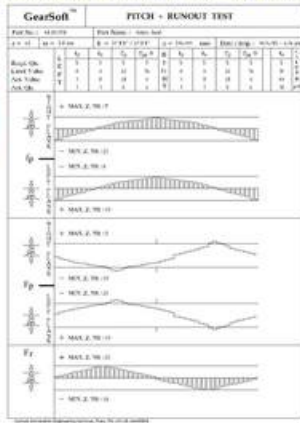
About GearSoft Data Entry Screen

> GearSoft Online Graph Plotting Screen (Type : One)

> GearSoft Online Graph Plotting Screen (Type : Two)

> GearSoft Graph Viewing Screen

> GearSoft Pitch + Runout Test Report



> Evaluation Length Screen

The screen displays input fields for Profile Evaluation Length (Start: 0.00, End: 16) and Helix Evaluation Length (Start: 3, End: 11). A diagram shows a gear profile with labels for EAP, W/EAP, SAE, and LMT. The text "PROFILE WITH TRUE INVOLUTE - RF" is centered below the diagram.

About GearSoft Data Entry Screen



> Class and Errors Selection Screen

The screen shows class selection options: No Tolerance, User Tolerance, DIN, and AGMA. It also includes sections for Profile Error Tolerances (Total Ff: 7, Total: 2, Angular fth: 5, Total: 1, Form f: 8, Total: 2) and Helix Error Tolerances (Total Fp: 5, Total: 3, Angular ffp: 4, Total: 2, Form fp: 5, Total: 2).

About GearSoft Data Entry Screen



> Test Selection Screen

The screen displays input fields for Helix Inspection Diameter (60), Profile Inspection Position (15), and Stylus Diameter (2). It also includes a "Select Test" section with options for "Both", "Only Lead", and "Only Profile". Below this are fields for "Lead Teeth Numbers to Inspect" (1, 8, 15, 22) and "Profile Teeth Numbers to Inspect" (1, 8, 15, 22). A diagram shows a gear with teeth numbered 1 through 22.

About GearSoft Data Entry Screen



