

# KUNARK HITECH MACHINING & SALES PVT.LTD.

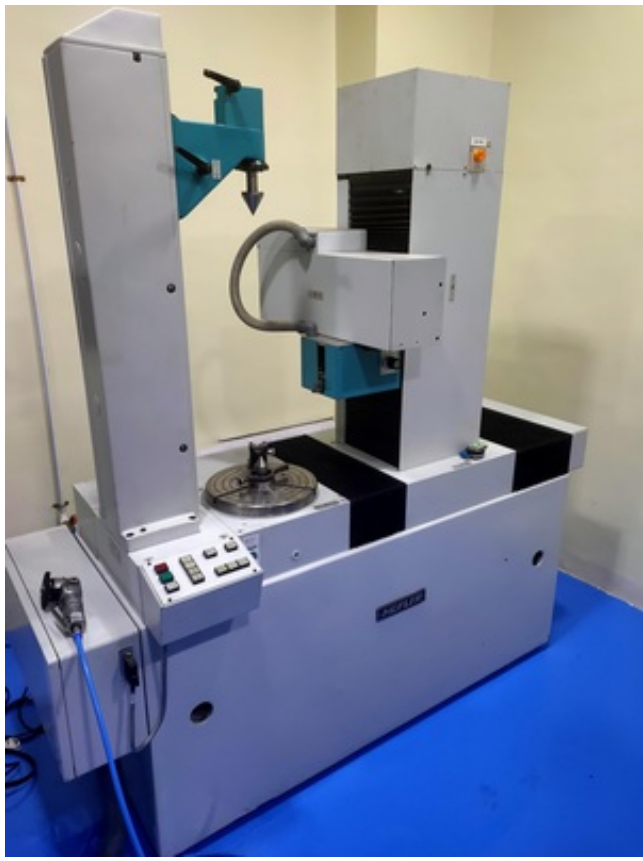
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## Features of GearSoft

- ✓ 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 'Main Screen' of the GearSoft software. It features a 'Gear Data' entry form with the following elements:

- Component Type:** Radio buttons for 'Gear' (selected) and 'Shaving Cutter'.
- Component No.:** A text input field containing '11'.
- Buttons:** 'Show Data', 'New Data', 'Edit Data', and 'Delete Data'.
- Data Table:** A table with two columns: 'Field Name' and 'Value'.
 

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	55.362
Active Profile Length (Add Length)	6.8
Start of Active Profile (Profile Length)	3.27
Correction Factor	0
Span Measurement	0 Dia 0 Teeth
Ball Diameter	0
- Navigation:** A 'Next' button at the bottom.
- Component Type:** A dropdown menu with 'Component Type' selected.
- Information Tabs:** 'Component Information', 'Profile Information', 'Gear Information', and 'Helix Information'.
- Instructions:** 'Enter Component No. upto 20 chars.'

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: 0.034 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.

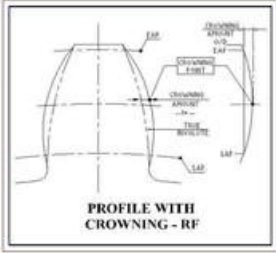
About GearSoft Data Entry Screen



> 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

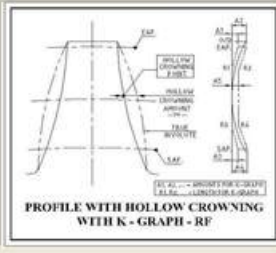


> Profile K-Graph Screen

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 )

Task No.	1	2	3	4
Left Helix	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Right Helix	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Left Profile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Right Profile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

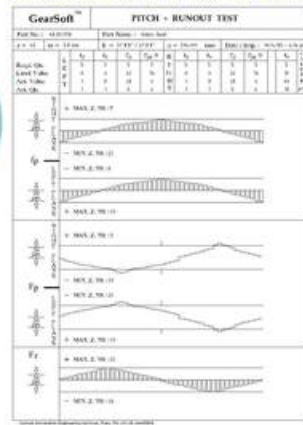
> GearSoft Online Graph Plotting Screen (Type : Two )

Task No.	1	2	3	4
Left Helix	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Right Helix	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Left Profile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Right Profile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

> GearSoft Graph Viewing Screen

Task No.	Cl.	Avg.	Left Helix	Line Val	Right Helix	Avg. Cl.
Fg	2	3.2	2	2.8	4.8	3
Fg	1	8.1	8.4	8.5	-8.4	-2.3
Fg	7	2.7	7	7.7	4.7	1.2

> GearSoft Pitch + Runout Test



> Evaluation Length Screen

Profile Evaluation Length  
 Start of Evaluation: 0.00  
 End of Evaluation: 16

Helix Evaluation Length  
 Start of Evaluation: 3  
 End of Evaluation: 11

**PROFILE WITH TRUE INVOLUTE - RF**

Previous Next

Evaluation Length Class Test

Enter Profile Start of Evaluation.

About GearSoft Data Entry Screen



> Class and Errors Selection Screen

Class Selection  
 Required Class : No Tolerance  
 User Tolerance  
 DIN  
 AGMA

Profile Error Tolerances  
 Total Ff: 7 Tol: 2  
 Angular fh: 5 Tol: 1  
 Form f: 8 Tol: 2

Helix Error Tolerances  
 Total Fp: 5 Tol: 3  
 Angular fh: 4 Tol: 2  
 Form fp: 5 Tol: 2

Error Selection for Calculation  
 Profile: Total Ff, Total fp, Angular fh, Angular fh p, Form f, Form fp

Previous Next

Evaluation Length Class Test

Enter Value of User Total Tolerance.

About GearSoft Data Entry Screen



> Test Selection Screen

Helix Inspection Diameter: 60  
 Profile Inspection Position: 15  
 Stylus Diameter: 2

Select Test:  
 Both  Only Lead  Only Profile

Lead Teeth Numbers to Inspect:  
 1 8 15 22

Profile Teeth Numbers to Inspect:  
 1 8 15 22

**TEETH NUMBERS**

Previous Next

Evaluation Length Class Test

Enter Teeth No.

About GearSoft Data Entry Screen





<b>Machine Id</b>	<b>:- 1272</b>	<b>Serial No</b>	<b>:-</b>
<b>Category</b>	<b>:- Gear Testers CNC</b>	<b>Model</b>	<b>:- EMZ400</b>
<b>Country</b>	<b>:- Germany</b>	<b>Make</b>	<b>:- Hofler</b>
<b>Type of Machine</b>	<b>:- 4 Axis CNC Gear Tester</b>	<b>Year</b>	<b>:-</b>
<b>Weight</b>	<b>:- 0.0</b>	<b>Dimensions</b>	<b>:-</b>
<b>Power</b>	<b>:-</b>	<b>Location</b>	<b>:- Mumbai Warehouse,India</b>

Specification :-

## Hofler EMZ-400

**Description:-**

**4 Axis CNC Gear Tester**

### Technical Specifications:

- Gear Diameter range	min / max	mm	20 / 400
- Range of BCD	min / max	mm	15 / 380
- Module	min / max	mm	0.5 / 20.0
- Helix angle.	max	Deg	+ / - 60
- Face width.	max	mm	500
- Admit Between Centers	min / max	mm	20 / 1050
- Gear Height above table	min	mm	80
- Job weight capacity on table	max	Kg	350
- Linear Axes Least Count.	min	microns	0.1
- Table Indexing Least count	min	seconds	0.36
- 3-D Probe Least Count	min	microns	0.1
- Power requirement (220V AC)	max	kw	2.0

### **Standard Operating &Application Features:**

1. Types of Measurements
  - 1.0 External / Internal Involute Spur &Helical Gear
    - 1a. Gear Tooth Involute Profile &Lead inspection
    - 1b. Individual/Adjacent/Cumulative Pitch Errors,
    - 1c. PCD Radial Run-out errors.
  - 2.0 Shaving Cutter Inspection. (Optional)

### **3.0 Shaping Cutter Inspection. (Optional)**

- 2. Complete Auto Cycle measurement of all parameters.**
- 3. Machine Axes Calibration Cycle.**
- 4. Manual Joy-stick control for axis movements.**

**Please note :-**

**we can sell machine as is where is basis (you can either use the same original software )**

**Or**

**We can change the and rebuilt the machine with New software and the features of the new software is**

**Briefed as attached**