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**Excel tips that if you don't
already know, you should**

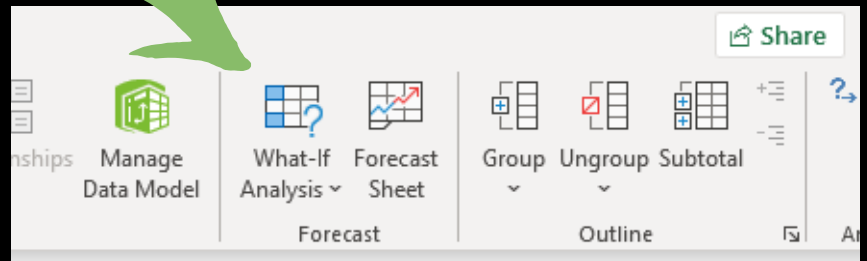
**#9 Data
Manipulation**

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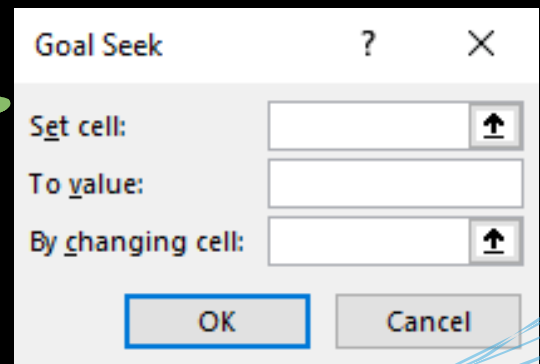
Goal seek

This function provides the ability to calculate backwards to achieve a desired result through changing a chosen input

Within the data tab click 'What-If-Analysis' and select 'Goal Seek'



The following box will appear



Select 'set cell' and input the target value for that cell. Then select the cell whos value should change.

Outer Diameter	2.13	in ²
Inner Diameter	1.90	in ²
C.S. Area	0.71	in ²
Stress	105000.00	psi
Force	74684.00	lbf

Goal Seek

Set cell:

To value:

By changing cell:

OK Cancel

Hit 'OK' and Goal Seek will present the result

Outer Diameter	2.20	in ²
Inner Diameter	1.90	in ²
C.S. Area	0.95	in ²
Stress	105000.00	psi
Force	100000.00	lbf

Goal Seek Status

Goal Seeking with Cell B10 found a solution.

Target value: 100000

Current value: 100000.00

OK Cancel

Solver

Within Goal Seek you can only select one input to change however within solver you can select multiple and add constraints.

Select cell to set to set

Set the target

Set cells that can change

Add necessary constraint

Solver Parameters

Set Objective:

To: Max Min Value Of:

By Changing Variable Cells:

Subject to the Constraints:

- \$B\$6 <= 3
- \$B\$7 <= 2

Buttons: Add, Change, Delete, Reset All, Load/Save

Hit 'Solve' and the results are displayed...

Solver Results

Solver found a solution. All Constraints and optimality conditions are satisfied.

Keep Solver Solution
 Restore Original Values

Return to Solver Parameters Dialog

Reports

Answer
Sensitivity
Limits

Outline Reports

OK Cancel Save Scenario...

Solver found a solution. All Constraints and optimality conditions are satisfied.

When the GRG engine is used, Solver has found at least a local optimal solution. When Simplex LP is used, this means Solver has found a global optimal solution.

Outer Diameter	2.17	in^2
Inner Diameter	1.87	in^2
C.S. Area	0.95	in^2
Stress	105000.00	psi
Force	100000.00	lbf



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Contact us for a free consultation, and find out how we can help you

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