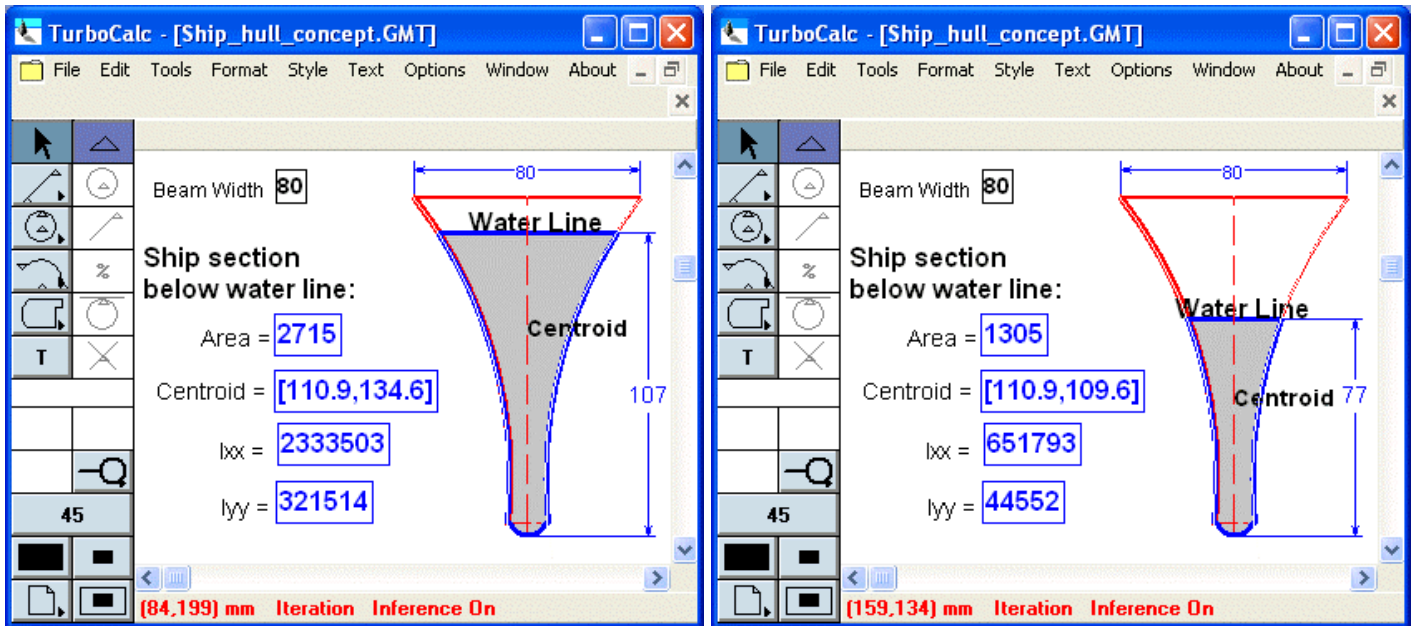
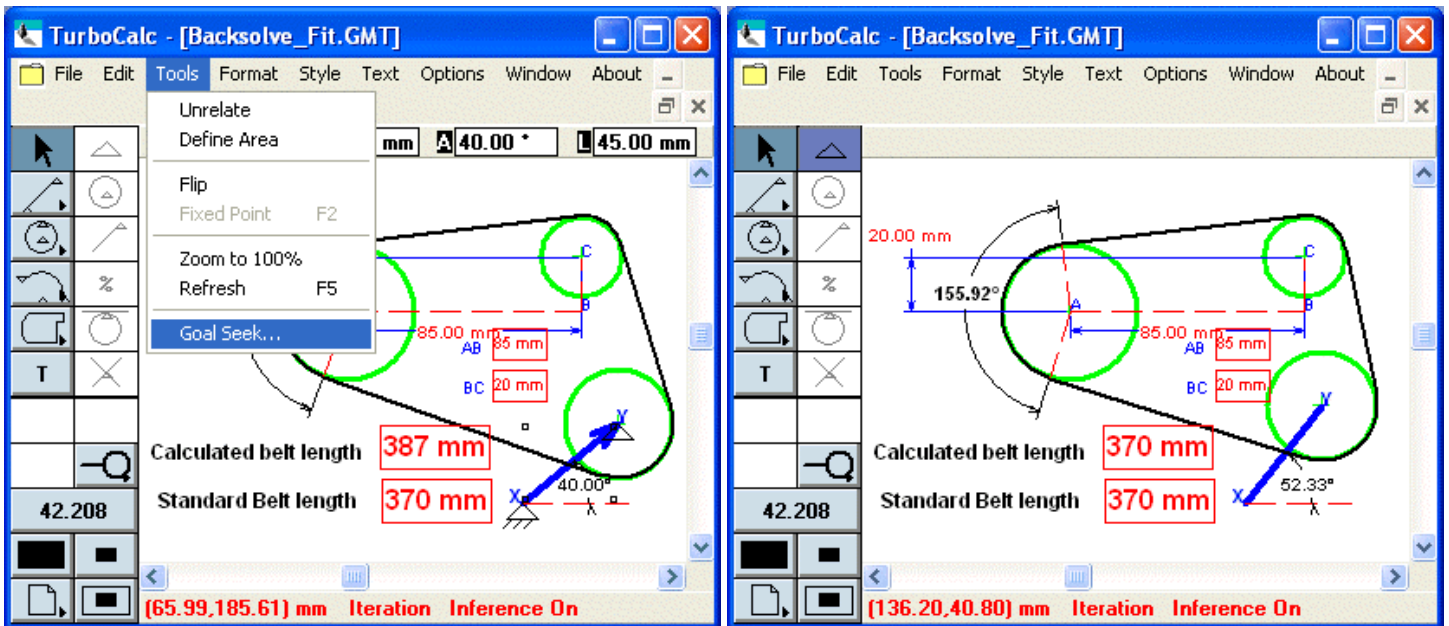


# Why TurboCalc – Five Top Reasons

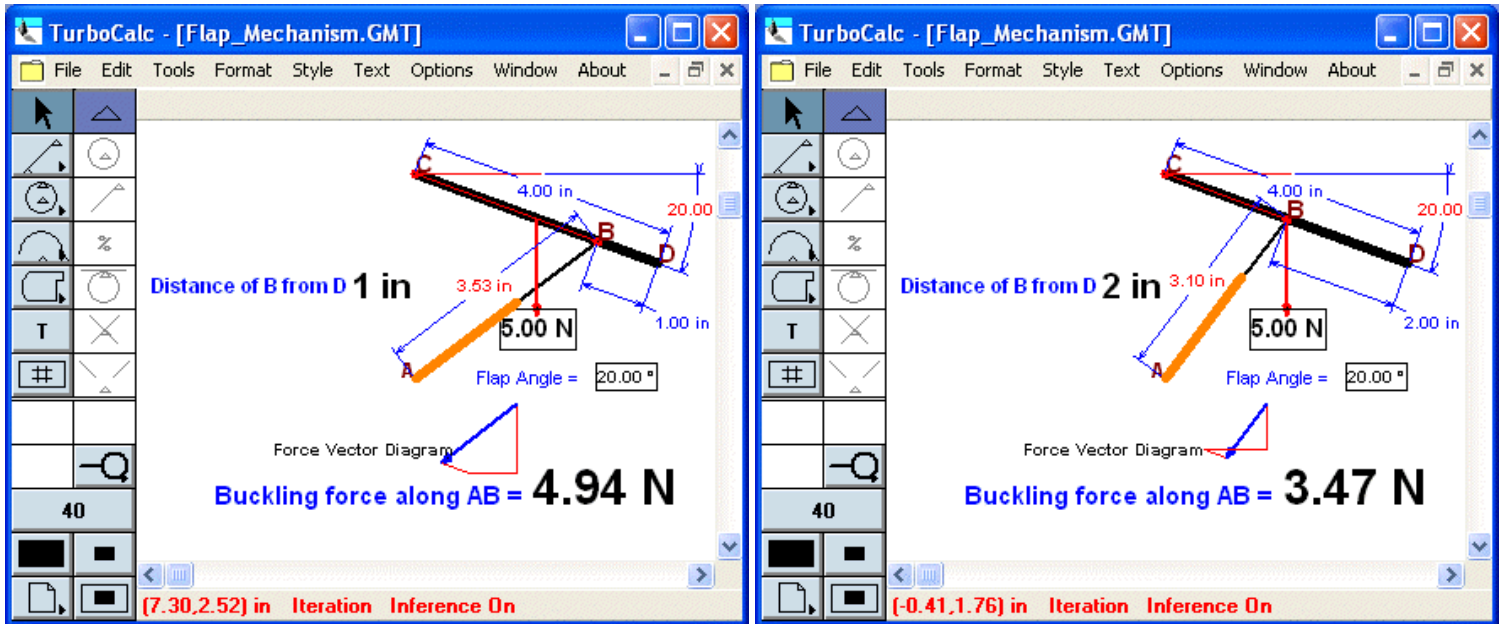
**Reason #1. Sketch and solve:** Traditionally engineers have used two separate tools to solve design challenges – one to create geometry the other for performing calculations. Information between the two tools is exchanged manually. This has been a tedious, disconnected, and error-prone process that inhibits innovation. The seamless fusion of geometry and calculations in TurboCalc delivers a creative environment that enables you to solve design challenges while making informed decisions. In the following example TurboCalc graphical calculation built-in functions are calculating the section properties of a ship hull without performing any mathematical calculations. As the waterline is changed the calculation results update automatically in real-time.



**Reason #2. Backsolve geometry:** TurboCalc includes a breakthrough Goalseek technology that enables you to backsolve exact geometry to satisfy measured or calculated design goals using just 4 mouse-clicks! In the following example TurboCalc is backsolving the angle of XY, the idler pulley holder arm, to fit the standard size belt.

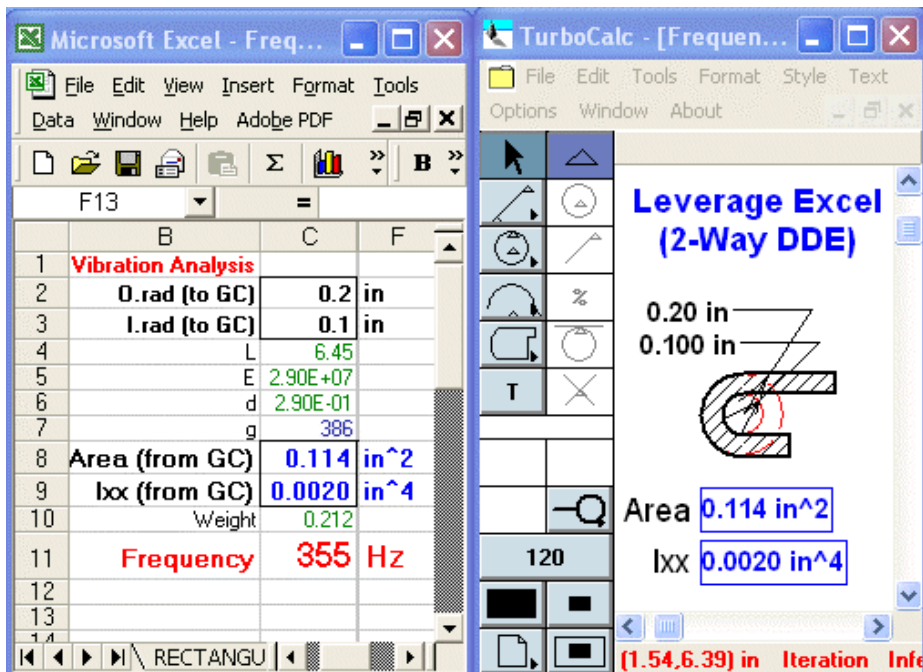


**Reason #3. Perform “what if” engineering:** The interactive real-time answers from TurboCalc enable you to quickly evaluate design options. In the following example as the mounting position of actuator is changed the graphical force diagram is automatically updated to provide the value of the buckling force on the actuator.



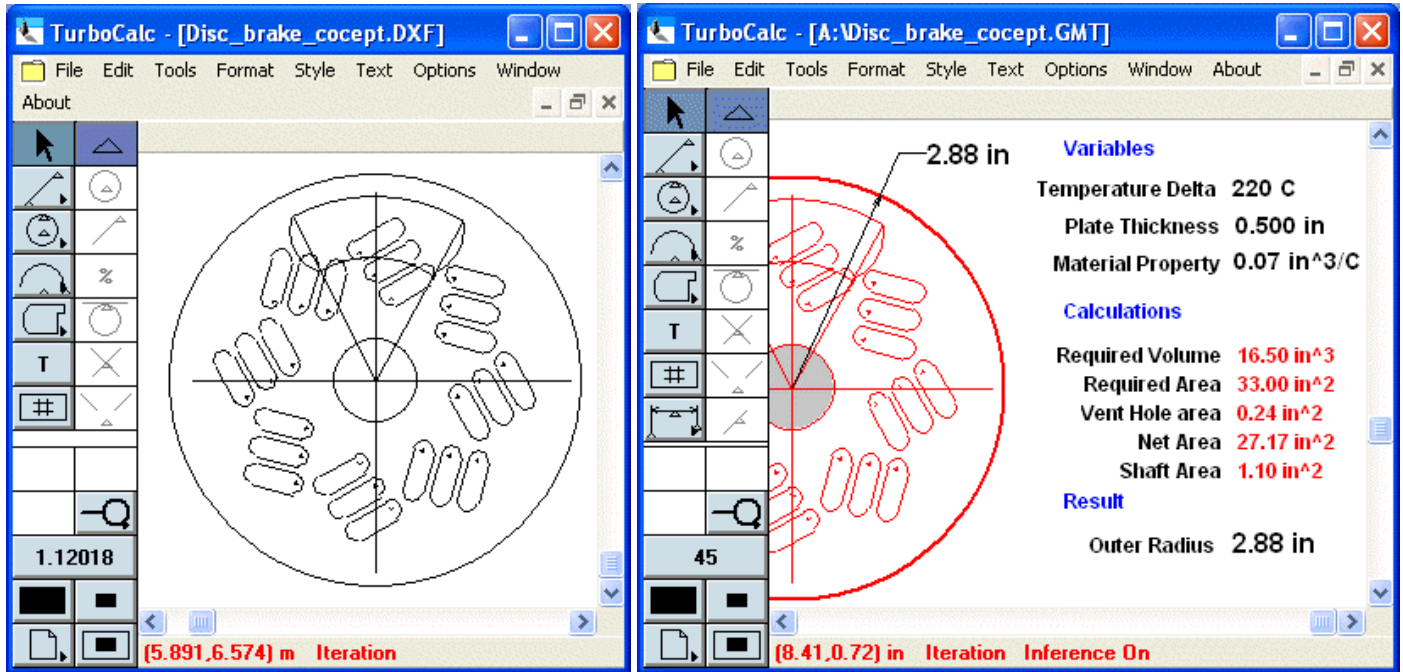
**Reason #4. Leverage Excel:** Using just a few mouse clicks you can connect TurboCalc with Microsoft Excel to dynamically exchange information in both directions using the Windows standard DDE protocol. This way you create graphical calculation macros and dimensions in TurboCalc to drive Excel calculations, conversely you can use Excel to drive any attribute of any geometry in TurboCalc models. TurboCalc and Excel together make an excellent engineering team!

In the following example Excel is driving the geometry of a bracket in TurboCalc and geometry dependent area and moment of inertia calculations performed in TurboCalc are fed to the frequency calculation being performed in Excel.



**Reason #5. Leverage CAD:** You can exchange geometry between TurboCalc and any DXF compliant CAD application in both directions using the 2-way DXF translator built within TurboCalc.

In the following example the initial geometry of the disc brake was read into TurboCalc in the DXF format. Then calculations were setup in TurboCalc to drive the disc brake geometry to account for the variables. The final geometry was saved in the DXF format in TurboCalc and used in the CAD application to build the optimal disc brake model. You can also print a drawing from within TurboCalc or simply copy and paste information from TurboCalc into any Microsoft Office application to generate technical reports.



**If you can sketch it – TurboCalc can solve it.**