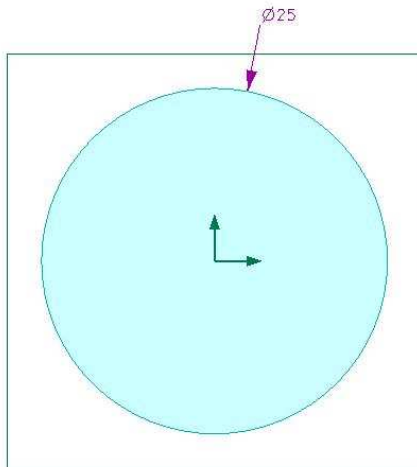


# Creating a Threaded Screw

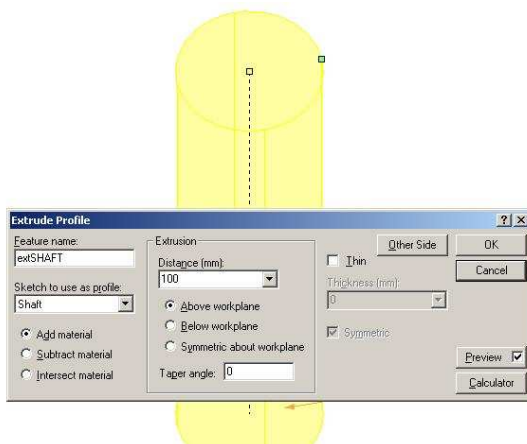
1. Set Units to Millimeters.
2. Create a New Design.
3. Save the Design as “threaded\_screwINL811” in your “Bottle Folder” folder.
4. Rename the “Initial” sketch on the Base workplane “shaft”.



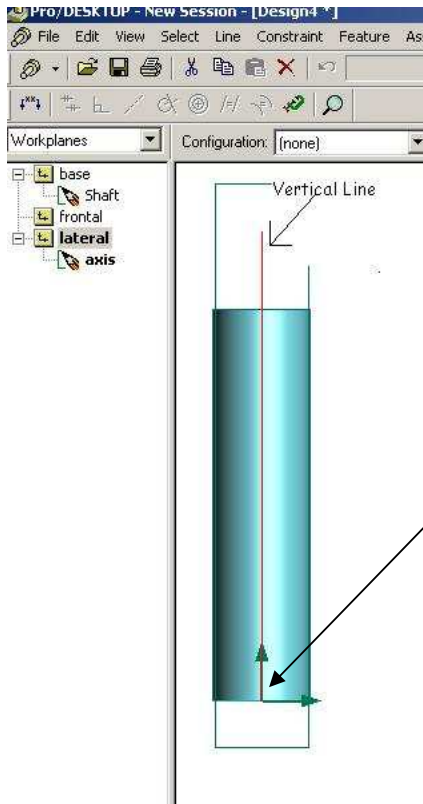
5. Be sure the “**Shaft**” sketch is **Active**.
6. **Drag out** and **dimension** a 25 mm circle.



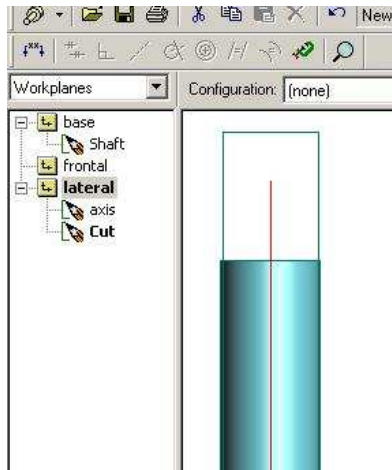
7. Go to Trimetric View
8. Extrude the circle to 100 mm.



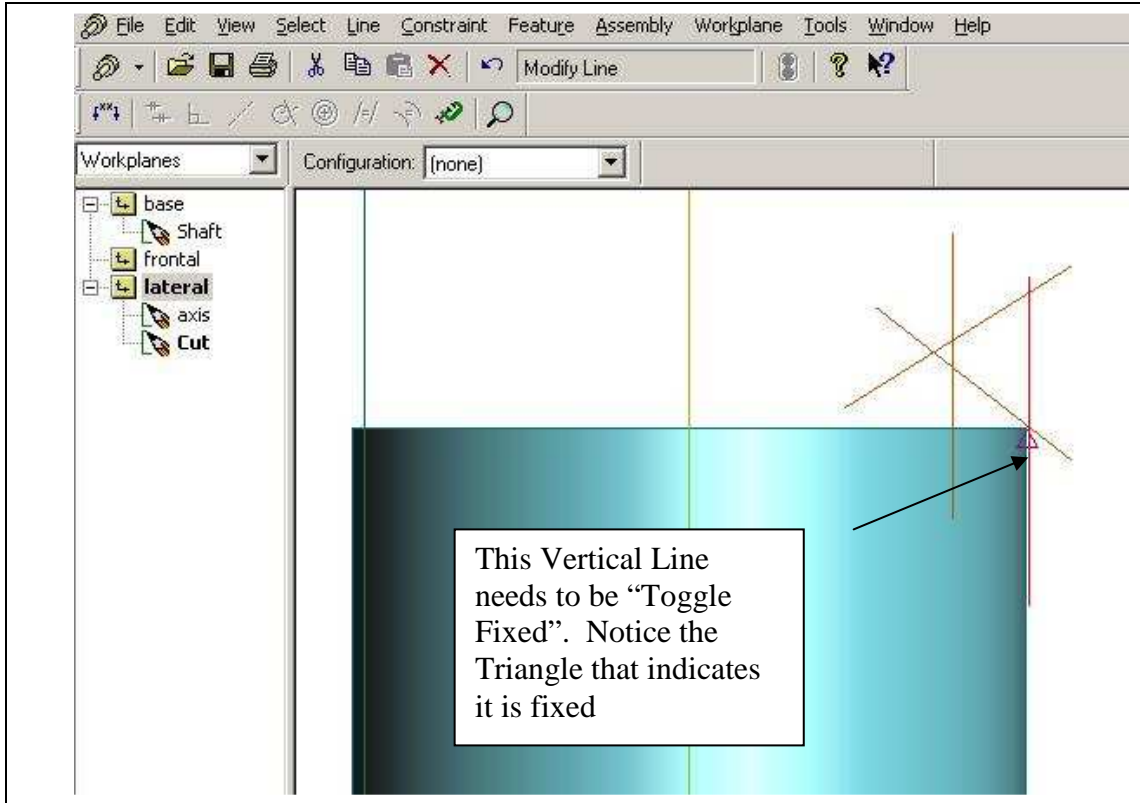
9. Create a **New Sketch** on the **Lateral** workplane. Name the Sketch **Axis**.
10. Drag out a vertical straight line on the Axis sketch. Be sure to start from “0,0”



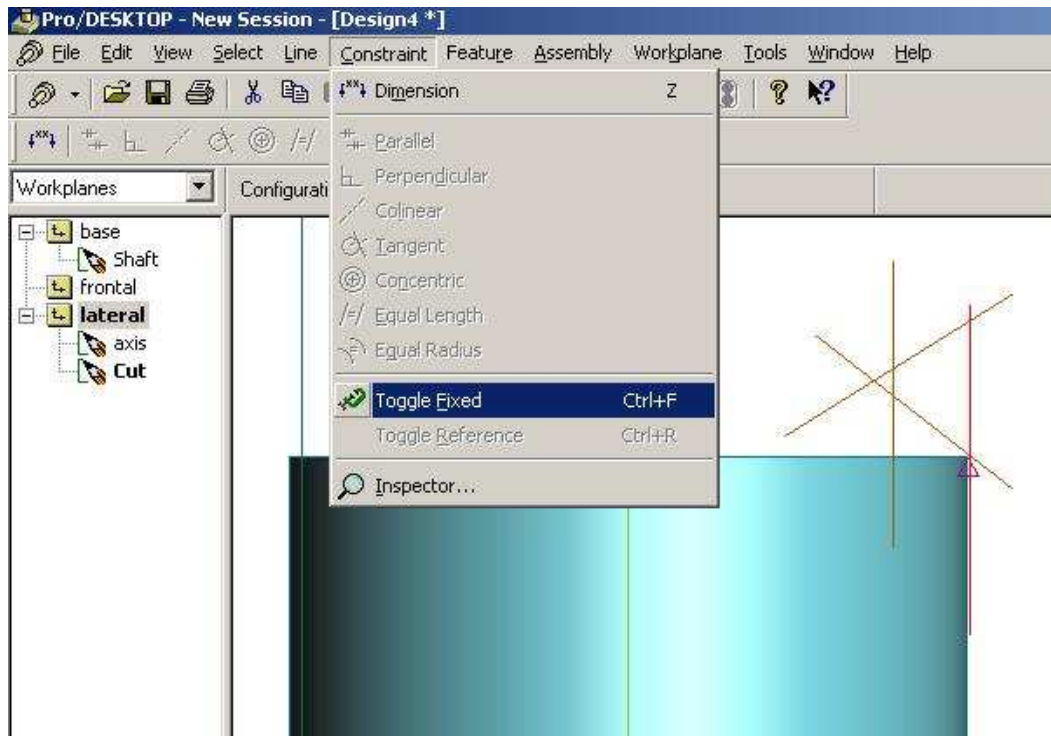
11. Create another **New Sketch** on the **Lateral** workplane. Name the sketch “**cut**”.



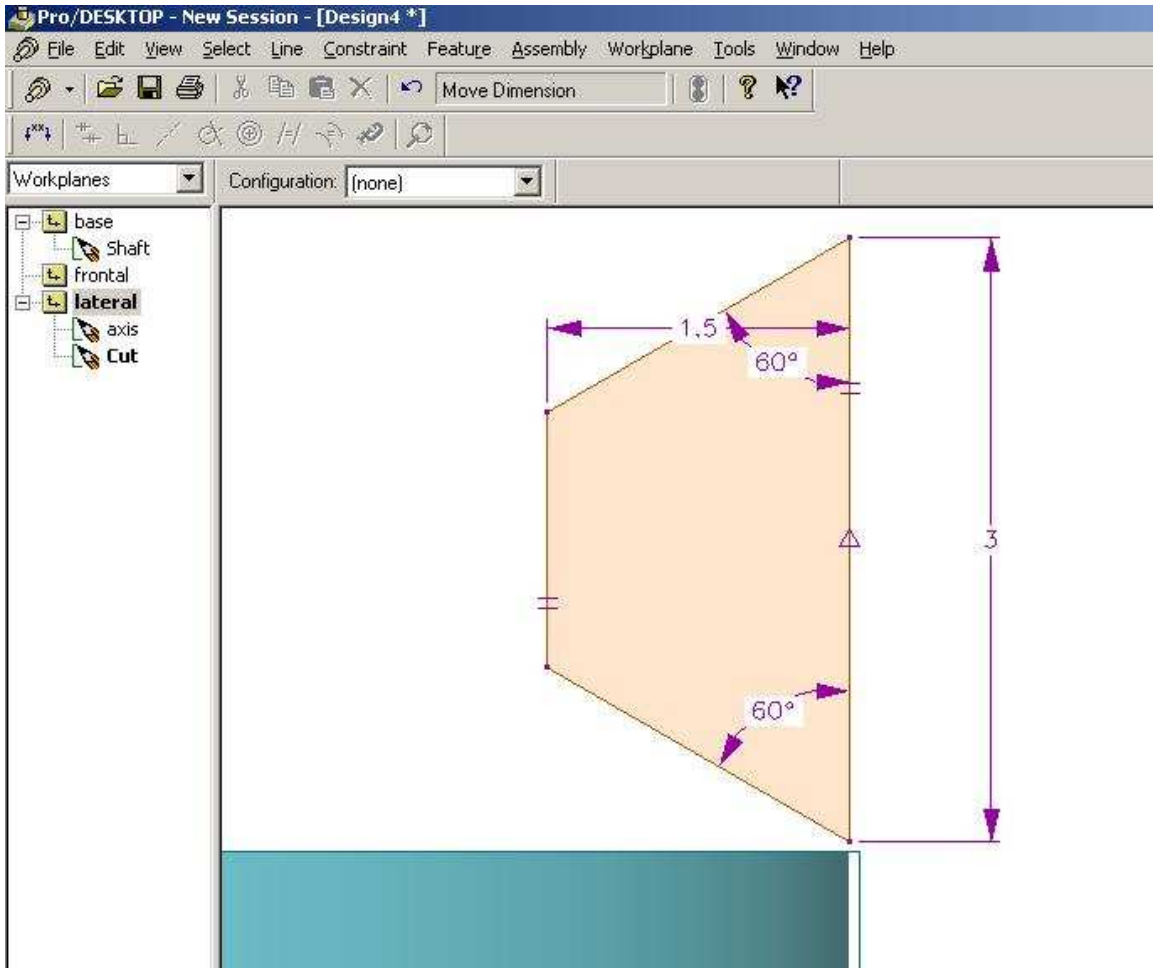
12. Zoom in, then draw the following sketch:



13. Select the right, vertical line. Go to **Constraint**, then Click "**Toggle Fixed**". This technique keeps the vertical line stationary as you dimension the lines and angles. Notice the "**Δ**" symbol on the line, indicating it is fixed.



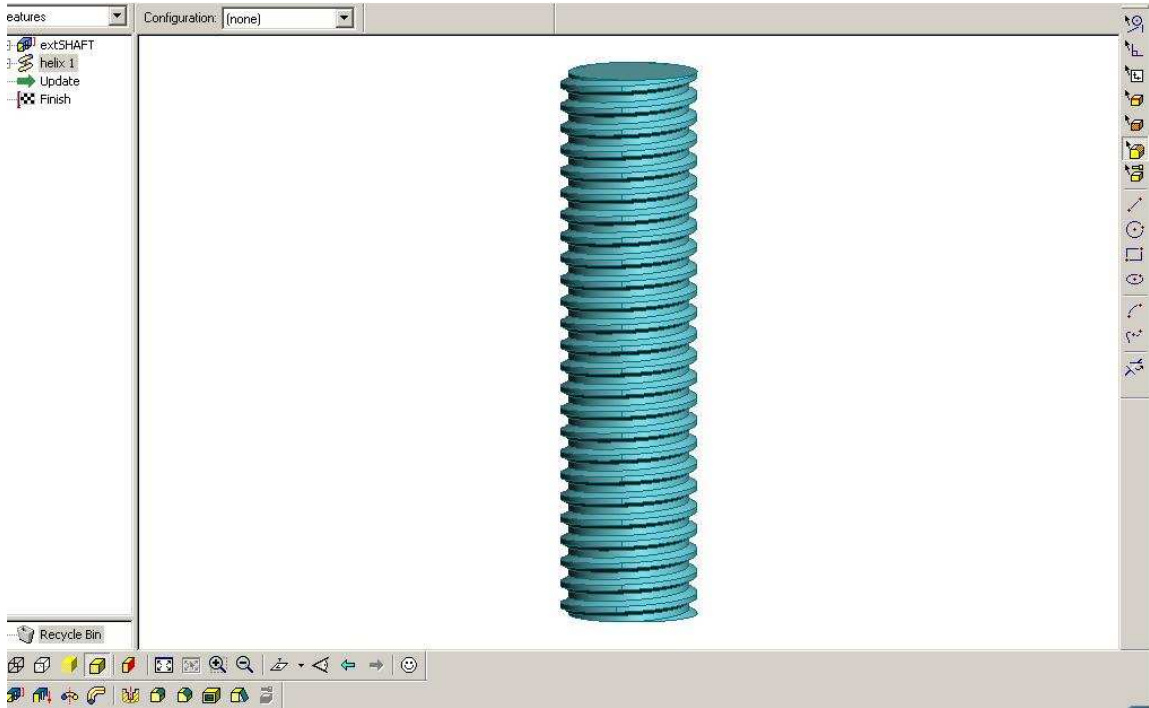
14. Dimension the sketch as follows: BE SURE IT IS VALID!!



15. Go to **Features >Sweep >Along Helix**. Fill out the dialogue box as it is done below. Be sure to select the “axis” line by clicking on it.



16. Your screw should look like the one below:



\*\* Try to create a **Nut** using the same techniques. See if you can get the threads to match up!!

