# Using Delcam Powermill with the Rotary Table

Written by: John Eberhart and Eric Kurzenberger
DM Lab Tutorial

The rotary table allows you to mill larger objects.
Please note: you need to review the other two powermill tutorial BEFORE attempting to create a tool path utilizing the rotary table.

1. Place the model below the XY Ground Plane

2. Place the vertical center of the model on the Z Axis.

This coordinates the origin of the model with the base point created in Powermill.
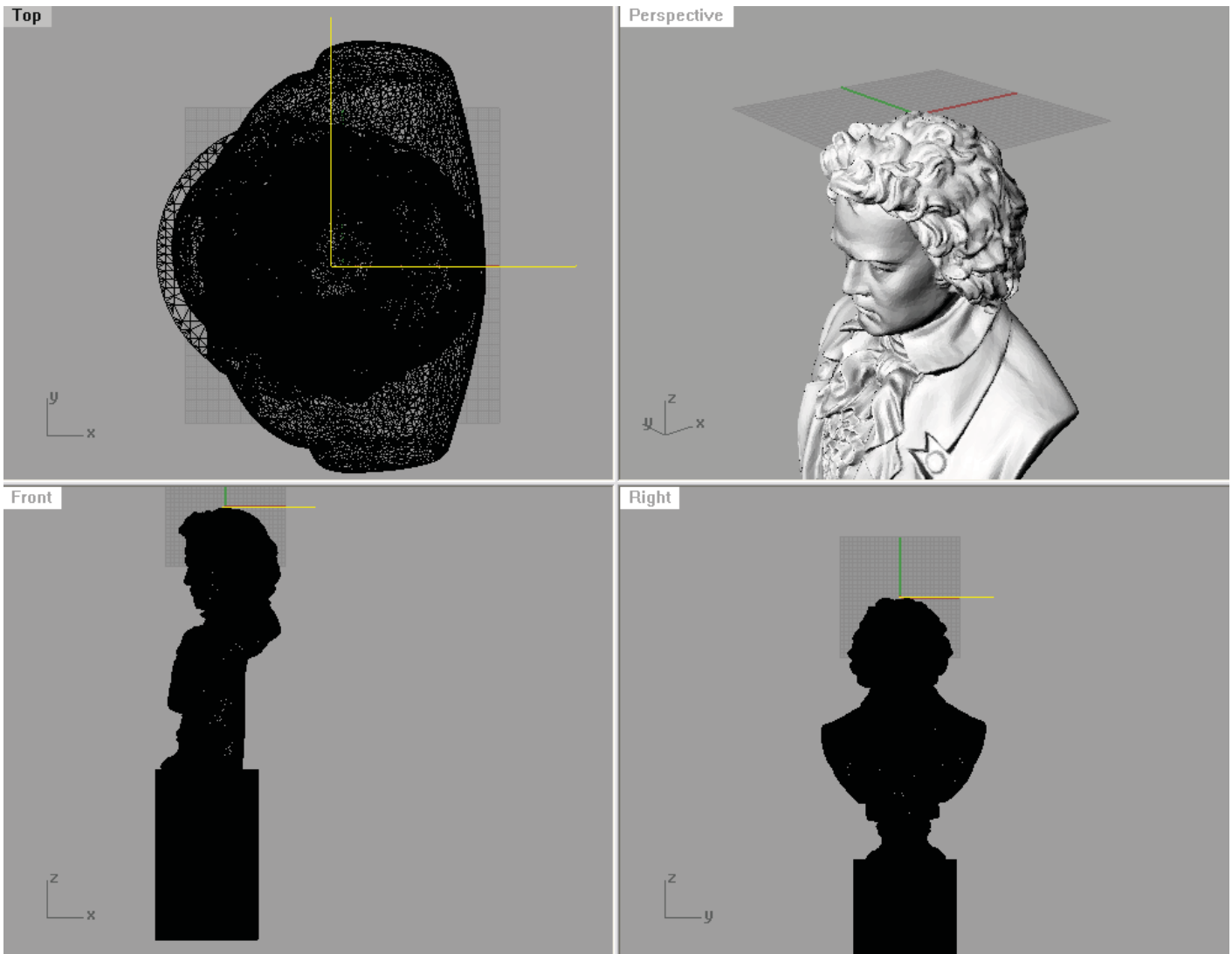
Export your model an import it into powermill.
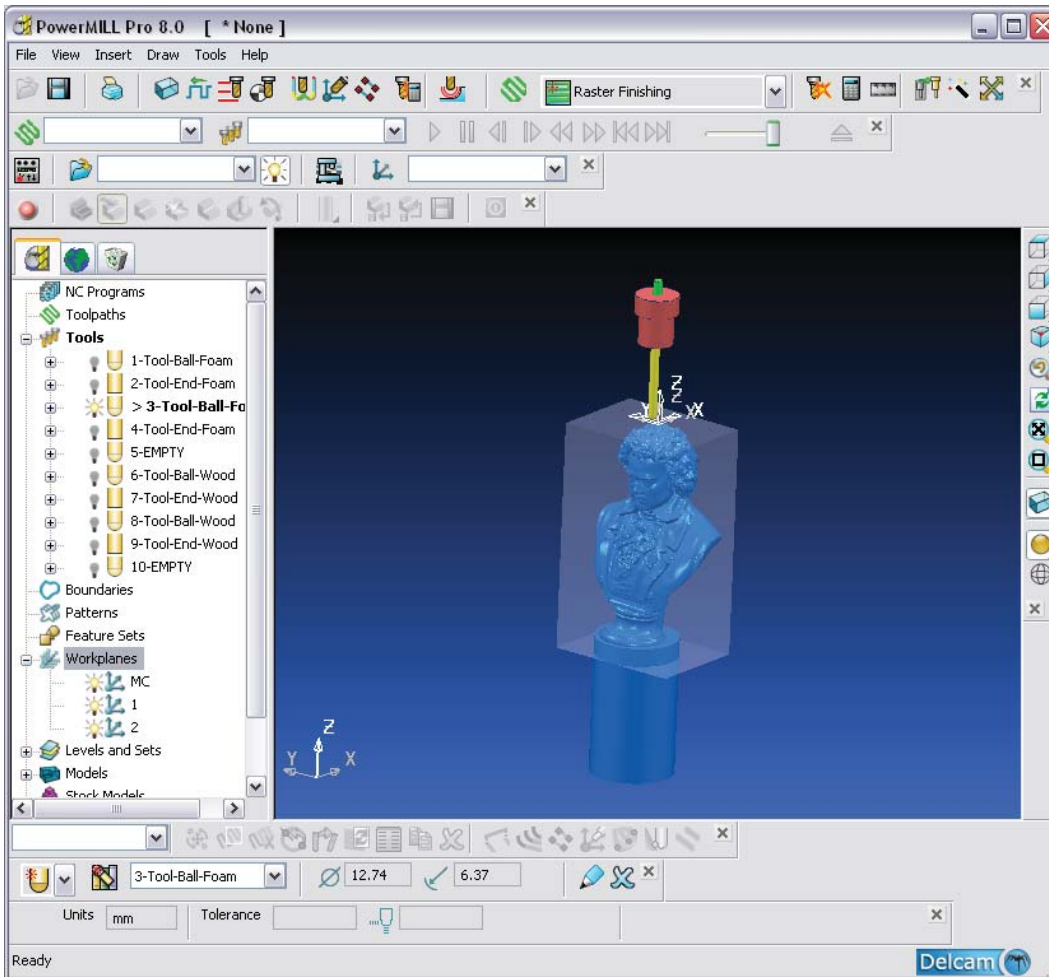
Setup your model in powermill.

Import the model, create block and lock it to the size.

Refer to the basic Powermill tutorial for instructions on how to do this.

Note:

The turntable has a safe work plane above the turntable set to 20" above the floor. When you clamp your piece to the turntable the min height from the floor you can mill is 20", so you will need to allow extra material.

Setting up a work plane for the robot to position correctly on the turntable.

Create a new work plane, so that it is oriented to the side of the piece you need to cut.

Rotate the X axis in the positive 90 degree direction.
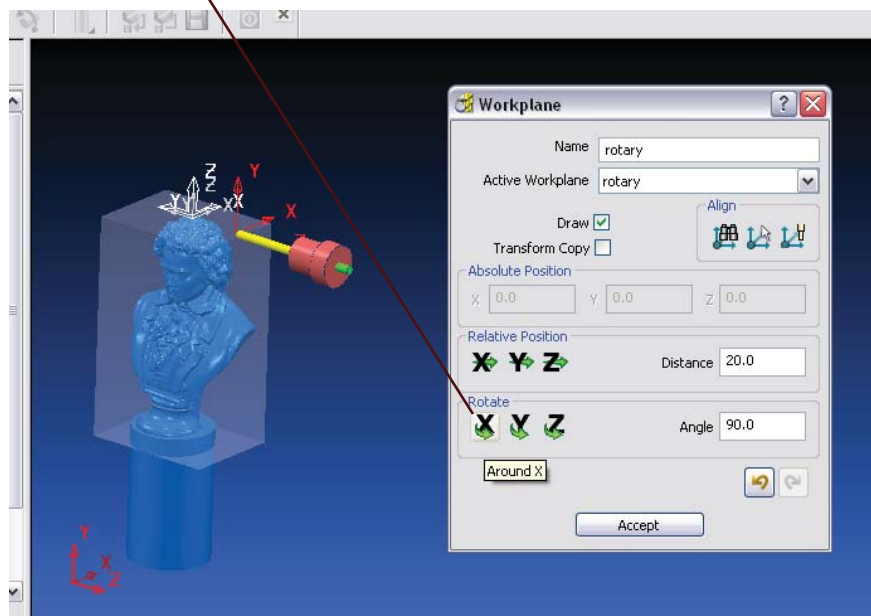
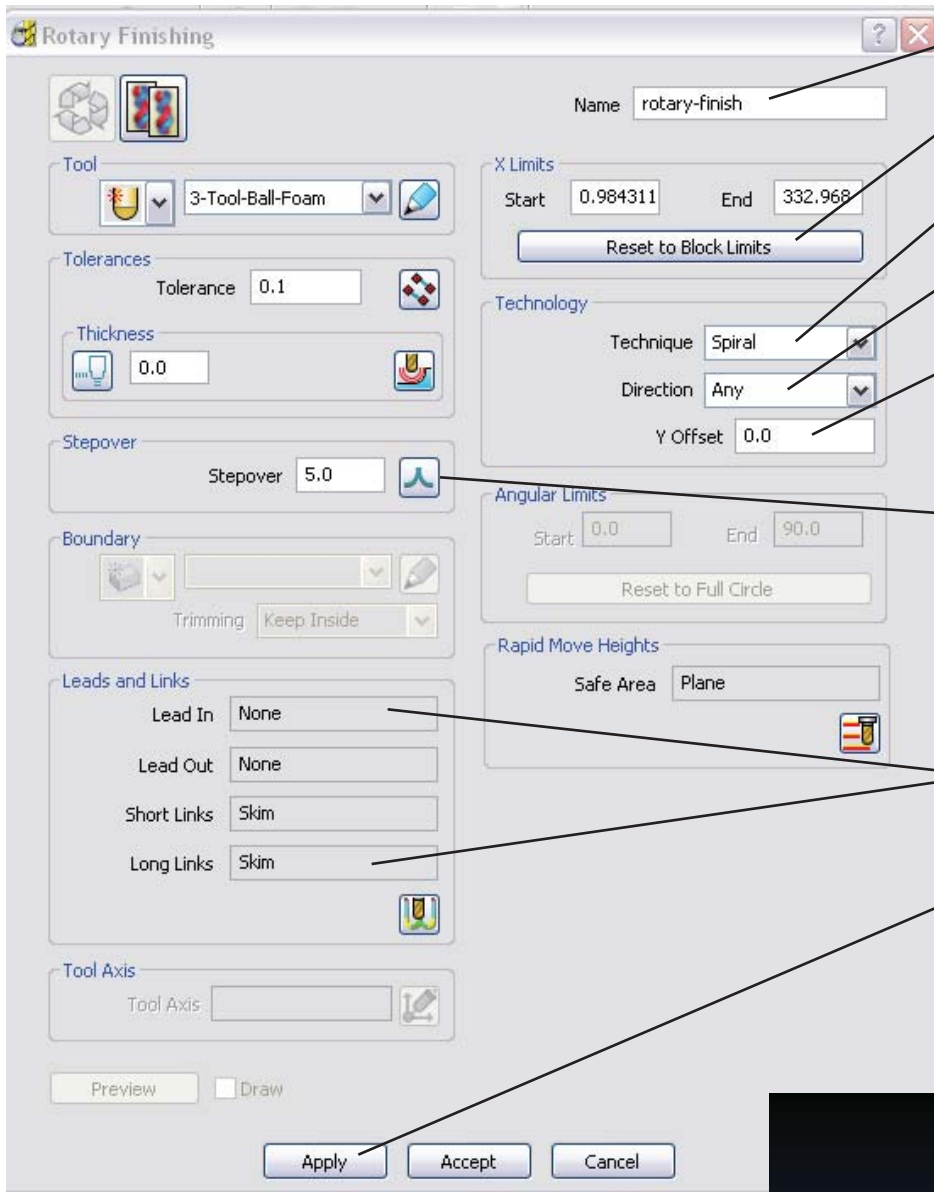Rotate the Z axis in the negative 90 degree direction.

Move your work plane away from the center of the block so it is outside of the block. It is this location that the mill will make a rapid move to first before the mill start to cut the piece.
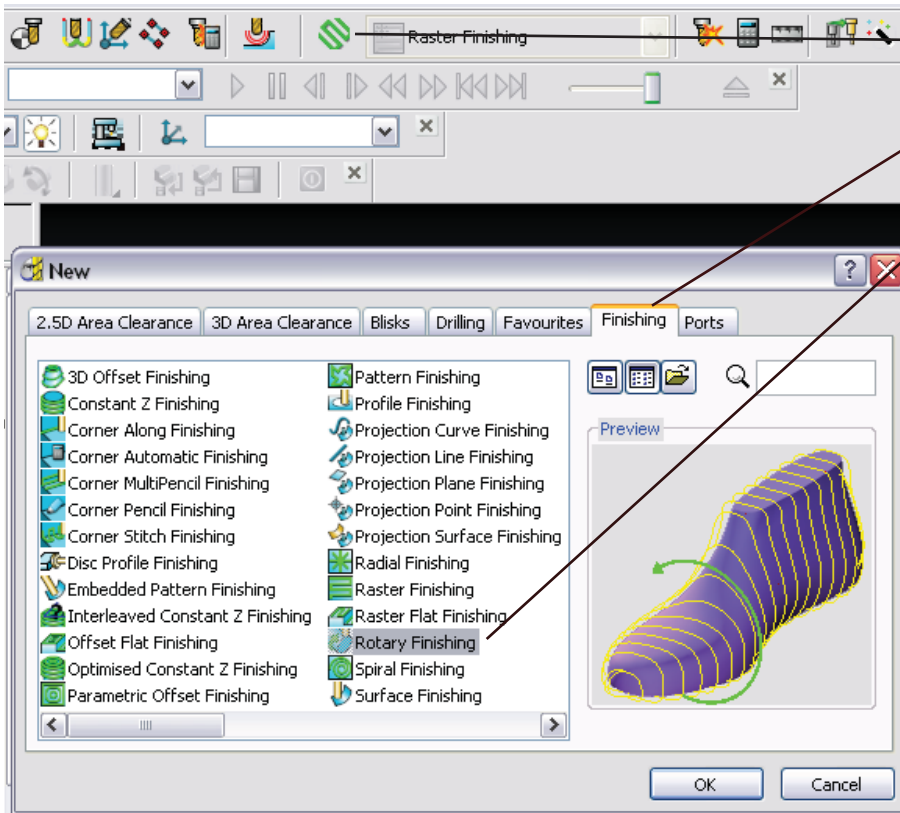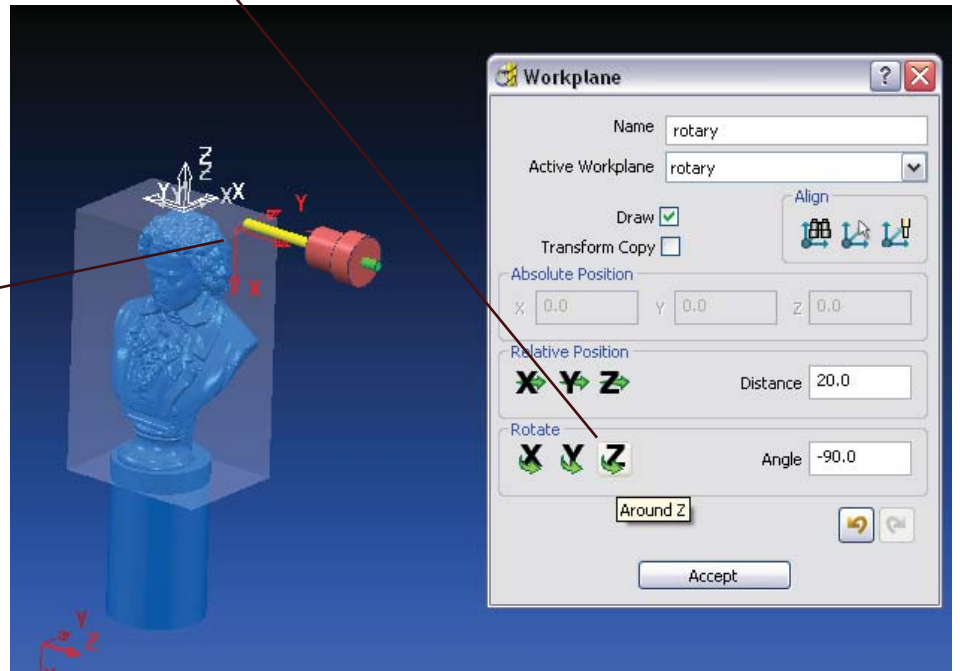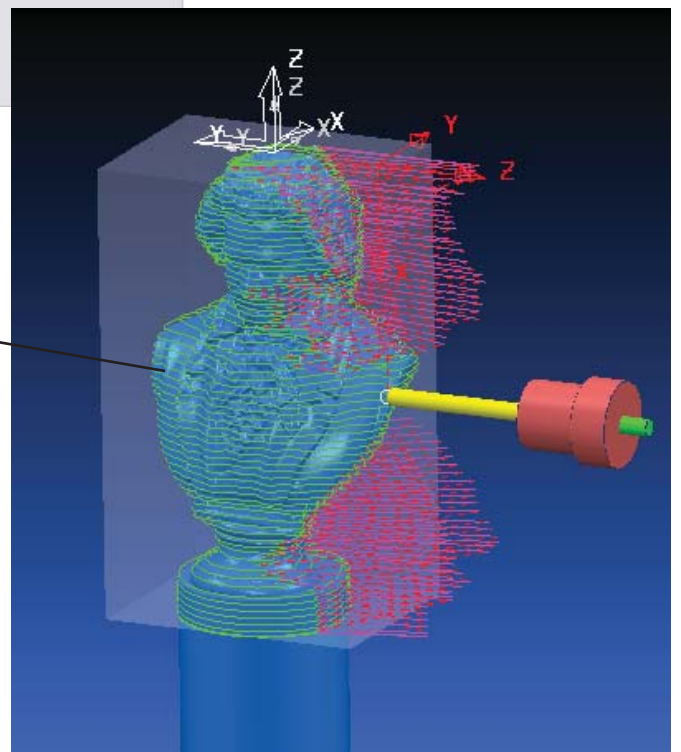
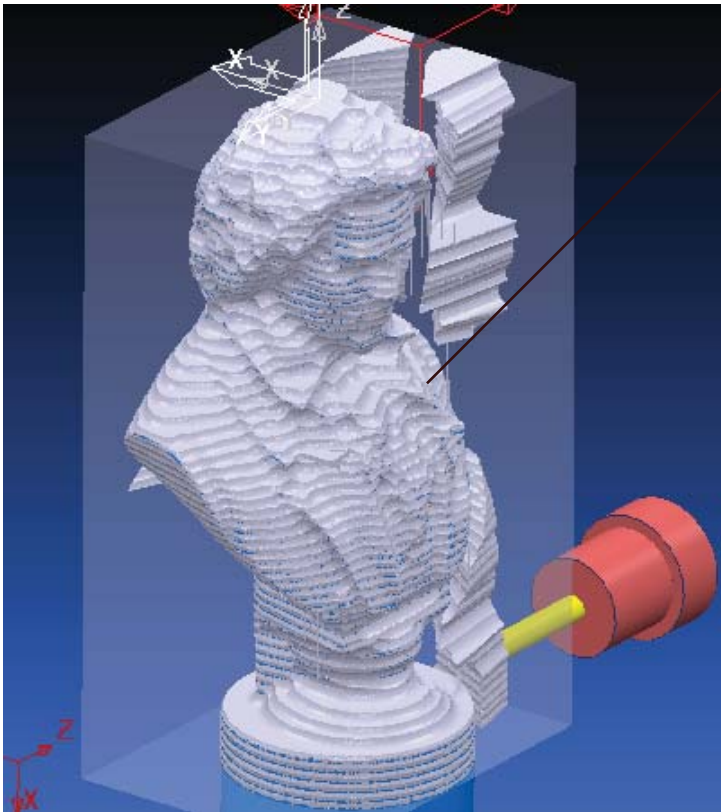Click on tool path strategies

Click on Finishing

Choose: Rotary Finishing

Rotary Finishing dialog box with callouts:

- Give a finish Name
- Click on "Reset to Block Limits"
- Choose Spiral finish
- Direction: Choose method, see other tutorial for explanations.
- Y offset: Set to 0.0
- Choose you desired step over in MM, see other tutorial for explanation.
- Set your Leads and Links, see other tutorial for explanation.
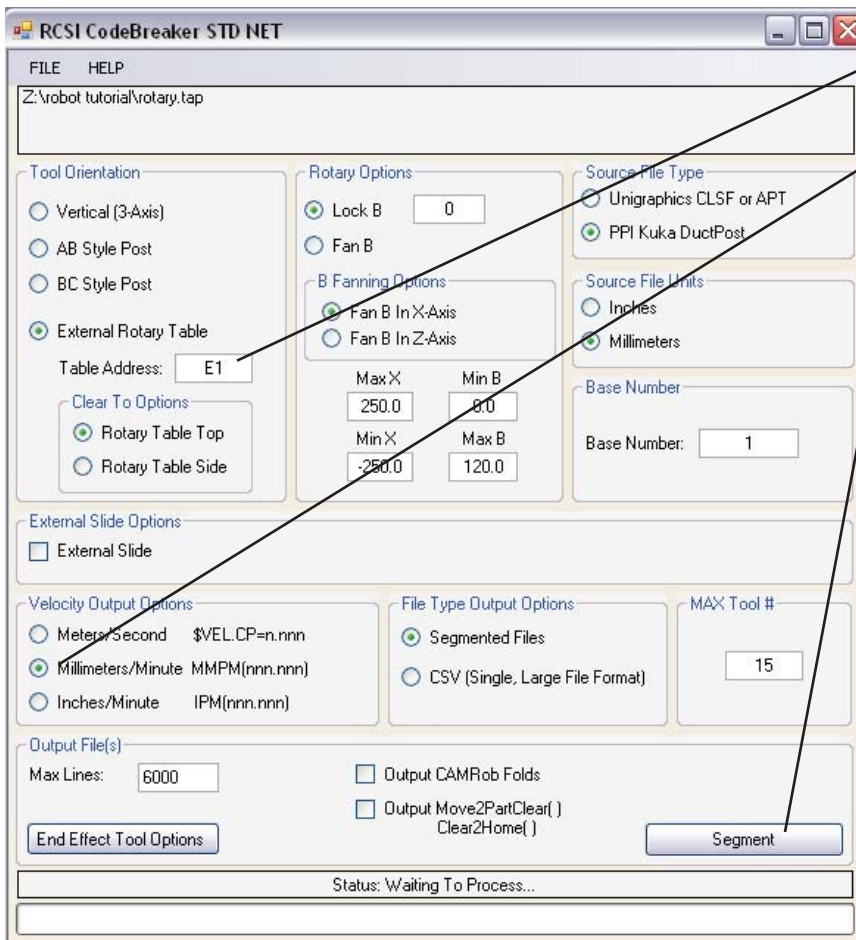- Click Apply to calculate tool path.
- Generated Tool path

Dialog fields:

Name: rotary-finish

Tool
3-Tool-Ball-Foam

Tolerances
Tolerance 0.1

Thickness
0.0

Stepover
Stepover 5.0

Boundary
Trimming Keep Inside

Leads and Links
Lead In None
Lead Out None
Short Links Skim
Long Links Skim

Tool Axis
Tool Axis

X Limits
Start 0.984311   End 332.968
Reset to Block Limits

Technology
Technique Spiral
Direction Any
Y Offset 0.0

Angular Limits
Start 0.0   End 90.0
Reset to Full Circle

Rapid Move Heights
Safe Area Plane

Preview   Draw

Apply   Accept   Cancel

Simulated Model

Code Breaker Settings: (Use Codebreaker Version 4.1)

1. Verify that External Rotary Table is set to **E-1 and Rotary Table Top.**

2. Choose **Millimeters/Minute.**

3. Choose **Segment** to break up the Tap File.

Load files into the robot.

Set your basepoint to the top center of your stock piece and enjoy!