

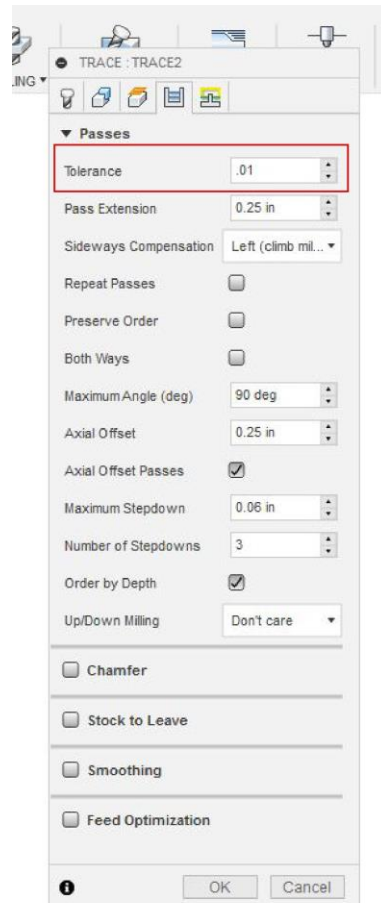
Setting up Fusion 360 CAM for use on the Gerber Sabre 408

Before outputting from Fusion CAM to the Gerber Sabre 408, you must first install the Post Processor for the Gerber in the Fusion Post Processor Local Directory. Instructions for how to add a custom Post Processor to the Fusion local directory can be found here:

<https://knowledge.autodesk.com/support/fusion-360/learn-explore/caas/sfdcarticles/sfdcarticles/How-to-add-a-Post-Processor-to-your-Personal-Posts-in-Fusion-360.html>

After that there are just a few adjustments that you should follow in Fusion CAM for best result on the Gerber 408

1. Tolerances



The Gerber 408 router will do its best to interpret the CNC code from Fusion, however you should lower the Tolerances in any toolpath setup to make it easier on the machine. If the work you are producing cannot allow for an error tolerance of .01 inch than perhaps another machine should be used.

2. Transitions

The image shows a software dialog box titled "SCALLOP: SCALLOP1 (2)". It has a toolbar at the top with icons for help, save, print, and other functions. The dialog is divided into several sections:

- Linking**: Contains settings for Retraction Policy (Full retraction), High Feedrate Mode (Preserve rapid r...), Allow Rapid Retract (checked), Safe Distance (0.08 in), and Maximum Stay-Dowr... (1 in).
- Leads & Transitions**: This section is highlighted with a red border. It contains:
 - Horizontal Lead-In Ri...: 0 in
 - Vertical Lead-In Radi...: 0 in
 - Horizontal Lead-Out ...: 0 in
 - Vertical Lead-Out Ra...: 0 in
 - Transition Type: Straight line
- Positions**: Contains an Entry Positions button with a mouse cursor icon and the text "Nothing".

At the bottom of the dialog are an information icon (i), and "OK" and "Cancel" buttons.

Lead Ins and Outs should be removed to minimize errors in circular interpolation.

3. Entry

This version of the Post Processor only allows for Plunge entry into the part. For best results, set the entry type to Plunge.

ADAPTIVE : ADAPTIVE2 (2)

LLING

▼ Linking

Retraction Policy: Full retraction

High Feedrate Mode: Preserve rapid r...

Allow Rapid Retract: ☒

Maximum Stay-Down...: 2.7 in

Minimum Stay-Down...: 0.0787402 in

Stay-Down Level: Least

Lift Height: 0 in

No-Engagement Fee...: 70 in/min

▼ Leads & Transitions

Horizontal Lead In/Out...: 0 in

Vertical Lead In/Out I...: 0 in

▼ Ramp

Ramp Type: Plunge

Ramp Clearance Hei...: 0.1 in

▼ Positions

Predrill Positions: Nothing

Entry Positions: Nothing

OK Cancel

4. Post Process overrides

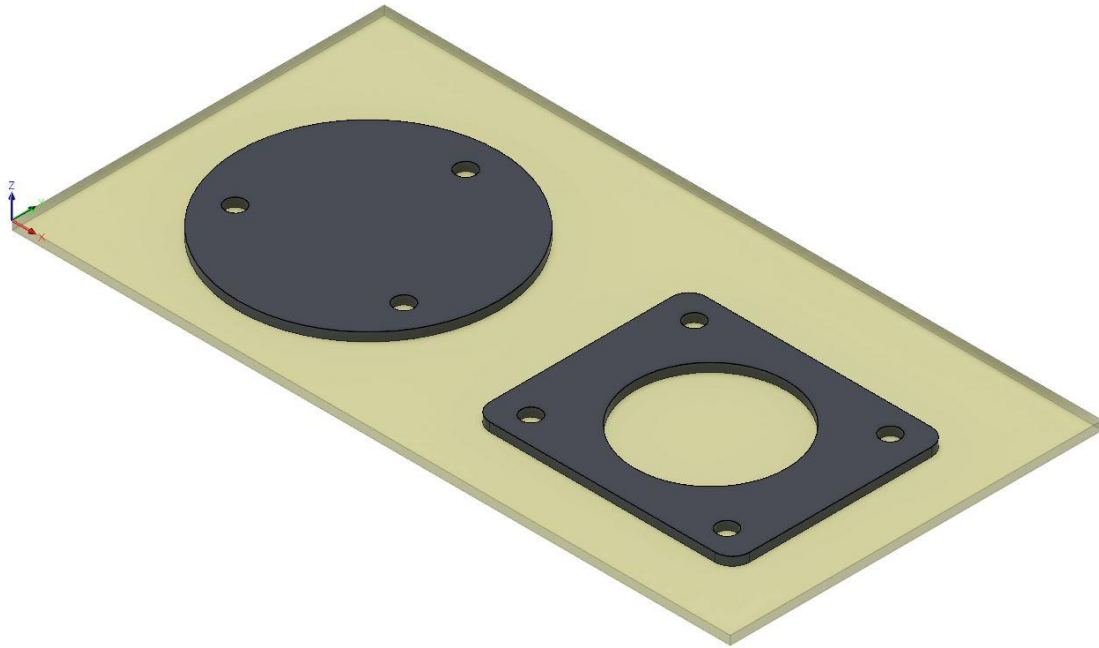
Before Posting out of Fusion 360, make sure to override the Built-In Tolerance default and set it to 0.01 inch.

The screenshot shows the 'Post Process' dialog box in Fusion 360. The 'Configuration Folder' is set to 'C:\Users\bradshaw\AppData\Roaming\Autodesk\Fusion 360 CAM\Posts'. The 'Post Configuration' section includes a search text field, a dropdown for 'All', and a dropdown for 'All vendors'. The 'Output folder' is set to 'C:\Users\bradshaw\AppData\Local\Fusion 360 CAM\nc' with an 'Open folder' button. The 'Program Settings' section includes a 'Program name or number' field set to '1001', a 'Program comment' field, a 'Unit' dropdown set to 'Document unit', and checkboxes for 'Reorder to minimize tool changes' (unchecked) and 'Open NC file in editor' (checked). A table of properties is shown, with the 'Built-in Tolerance' property highlighted by a red box and set to '0.01'.

Property	Value
(Built-in) Allow helical moves	No
(Built-in) High feedrate mapping	Preserve rapi...
(Built-in) High feedrate	0
(Built-in) Maximum circular radius	1000
(Built-in) Minimum chord length	0.25
(Built-in) Minimum circular radius	0.01
(Built-in) Tolerance	0.01

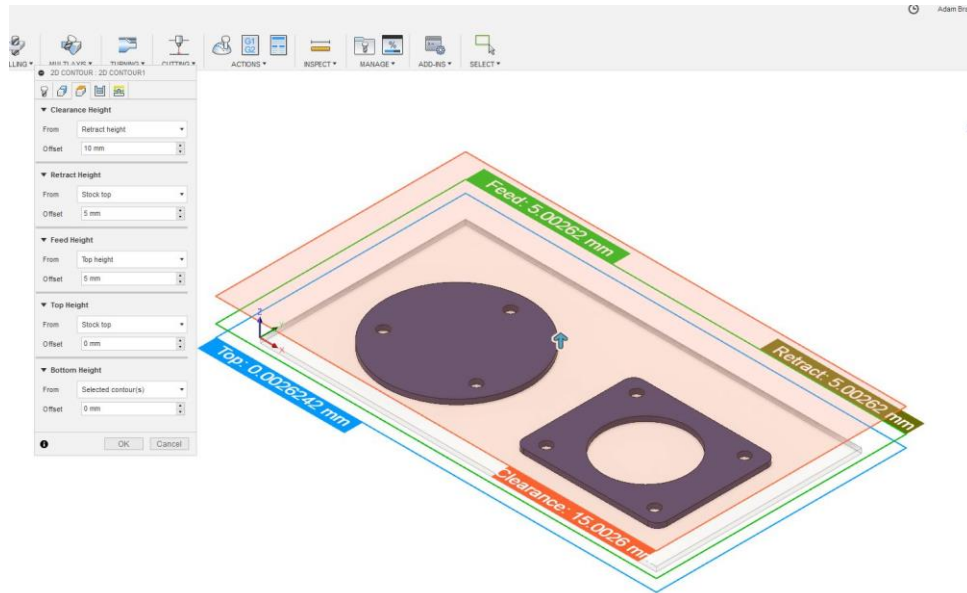
5. WCS and Part Orientation

The WCS for all setups in Fusion CAM should be set to the top of the Stock with the origin set to the lower Left corner of the stock.



6. Planes/Retracts/Clearances

With the WCS set to the top of the Stock all moves related to planes, retracts and clearances will post out of Fusion CAM with a Negative value. Conversely, all cutting moves will have a Positive value.



```
Test Code Profile Contour.gcr - Notepad
File Edit Format View Help
#R4000
#R4100
#M49000061A8
#MJob Start. Load Matl
#L0.0000 0.0000 -1.9974 165.6765 85.8519 0.0026
#R4101
#R4001
#M1:4.0000 flat end mill<18000 R.P.M>
#R4A00000001
#F960
#P960
#A89.3220 60.8411 -15.0026
#A89.3220 60.8411 -15.0026
#A89.3220 60.8411 -5.0026
#C89.3220 60.8411 -2.0026
#C89.3220 60.8411 0.9974
#B90.1234 63.8320 0.9974
#B92.3130 66.0216 0.9974
#B95.3039 66.8230 0.9974
#B147.3400 66.8230 0.9974
#B150.3310 66.0216 0.9974
#B152.5205 63.8321 0.9974
#B153.3220 60.8411 0.9974
#B153.3220 18.8049 0.9974
#B152.5205 15.8139 0.9974
```

The Clearance Plane in this Code is actually 15.0026 millimeters above the Part Origin. The Feed Plane is 5.0026 millimeters above the part and the first cutting move is 1 millimeter deep into the 1.9974 thick stock.