

How to Pocket

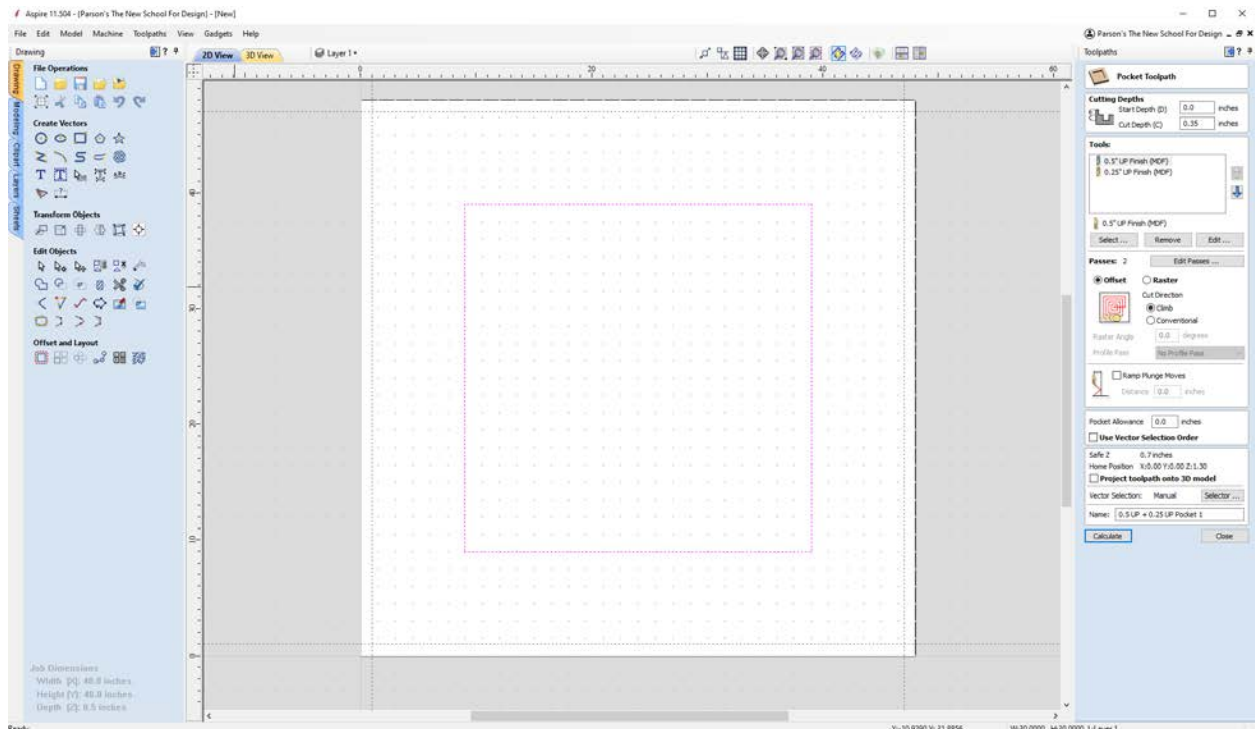
Removing material within specified boundary at a fixed depth

STEP 1: Select Pocket Toolpath Operation

On the right side of the screen, under Toolpath Operations, select the Pocket Toolpath.



STEP 2: Select Vectors



Select the vectors you want to pocket. They will turn pink when selected.

STEP 3: Configure Pocket

Pocket Toolpath

Cutting Depths

Start Depth (D) inches

Cut Depth (C) inches

Tools:

- 0.5" UP Finish (MDF)
- 0.25" UP Finish (MDF)

0.5" UP Finish (MDF)

Select ... Remove Edit ...

Passes: 2 Edit Passes ...

Start Depth (D)

The starting point of your pocket, usually set to 0.0 inches.

Cut Depth (C)

How deep your pocket will machine from the start depth.

Tools

Press "Select" to open up the Tool Database and choose the most appropriate tool.

You can optimize your pocket with rest machining, a technique that uses multiple tools to optimize machining time and material removal. Each tool will remove any remaining material that the previous tool was unable to machine.

STEP 4: Select Tool

Material: L3 CNC Online Machine: PRSAlpha 96-48 - Def

0.5" UP Finish (MDF)

Notes: Cutting Length: 1" Toolpath Types: 3D Finish Recommendations: Chip Load: .007 -.009

Tool Type: End Mill

Geometry

Units: inches

Diameter (D): 0.5 inches

No. Flutes: 2

Cutting Parameters

Pass Depth: 0.25 inches

Stepover: 0.07 inches 14 %

Feeds and Speeds

Spindle Speed: 14000 r.p.m

Feed Units: inches/min Chip Load: inches

Feed Rate: 232.8 inches/min

Plunge Rate: 93.3 inches/min

Tool Number: 1

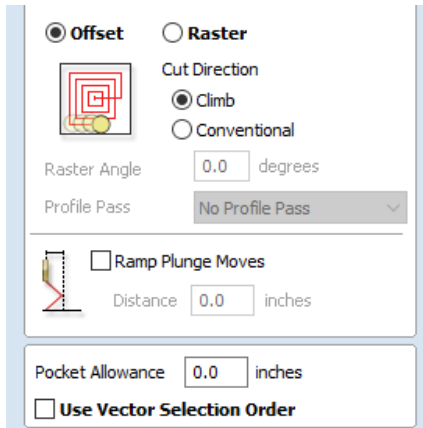
Remove Apply Select Close

Look under the tool settings that correspond to your material. Use the **largest** tool possible, while still achieving your desired fidelity.

Up tools are generally used to cut flat surfaces. **Ball** tools will machine interior fillets.

Rough settings will cut faster, but **finish** settings will give a cleaner edge.

STEP 5: Configure Pocket cont.



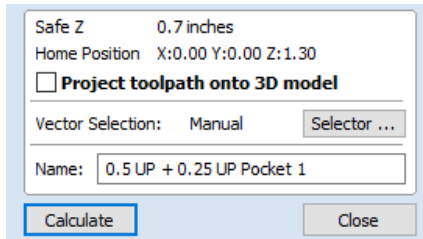
Offset vs. Raster

This defines the method that the machine clears away the material.

Offset starts from the center and works its way out. This can create a better edge for organic shapes.

Raster allows you to select the axis you want to machine across. This can be beneficial for hardwood so that you can cut with the grain, resulting in a better cut.

STEP 6: Rename + Calculate Toolpath

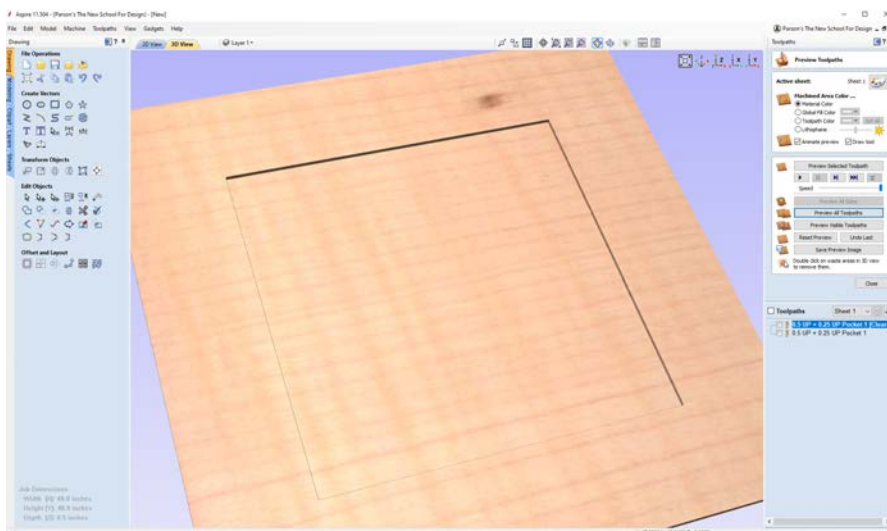


Rename your toolpath to follow the naming convention of “[**toolsize**] [**tooltype**] [**operation**]”. If there are multiple tools, list all of them.

This will come in handy when optimizing your toolpath order.

Press “Calculate” to finish the operation.

STEP 8: Preview



Click “Preview All Toolpaths” to preview the results.

If you need to edit the toolpath, double click the name of the operation.

When finished, click “Close” to exit out of the preview and click “2D View” towards the top of the screen to continue writing your operations.