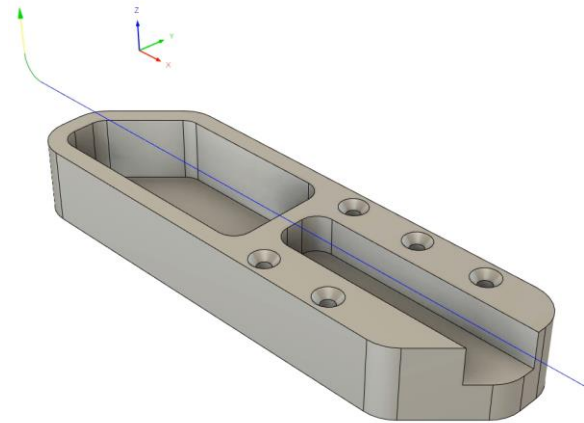


Lesson: Create a Facing Toolpath

In this lesson, create a Face operation to face a part.

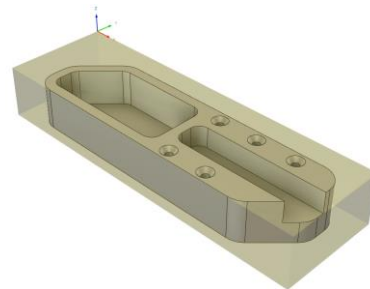
Learning Objectives

- Modify tool parameters.
- Demonstrate how to create a facing toolpath.









The completed exercise

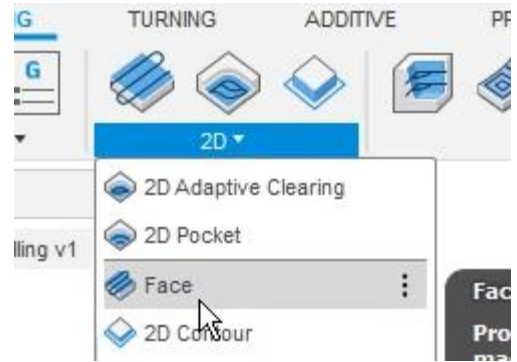
1. Continue with the *Introduction to Milling* file from the previous module.



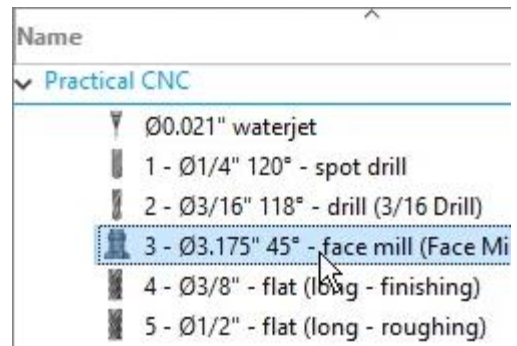
2. Click Manage> Tool Library and make sure the Practical CNC library has the tool shown in the image on the right.

Name	
✓ Practical CNC	
	Ø0.021" waterjet
	1 - Ø1/4" 120° - spot drill
	2 - Ø3/16" 118° - drill (3/16 Drill)
	3 - Ø3.175" 45° - face mill (Face M)
	4 - Ø3/8" - flat (long - finishing)
	5 - Ø1/2" - flat (long - roughing)

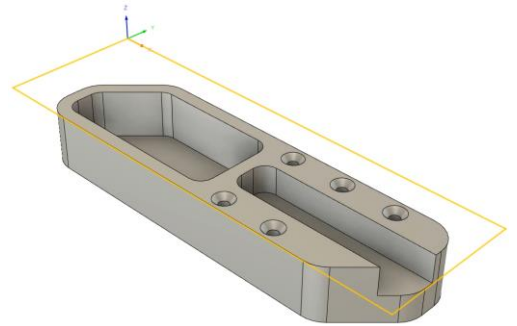
3. The first operation that needs to be created to cut this part's geometry is to face the extra material off the top of the stock. Click 2D> Face.



4. Inside the dialog, click Select to choose an appropriate tool for the operation. Navigate to the Practical CNC library and choose Tool 3. Click OK in the Select Tool dialog to accept the selection.



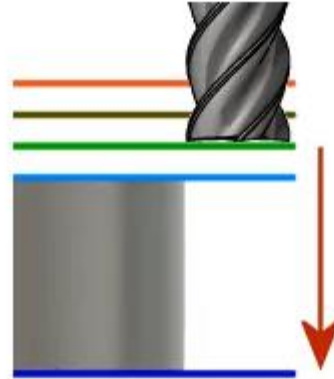
5. Continue to the dialog's Geometry tab and notice that the stock's perimeter is automatically selected as the Stock Selections.



6. Continue to the Heights tab and learn about each height by hovering over the menus. Read the tooltip that describes each height but don't make any changes.

From

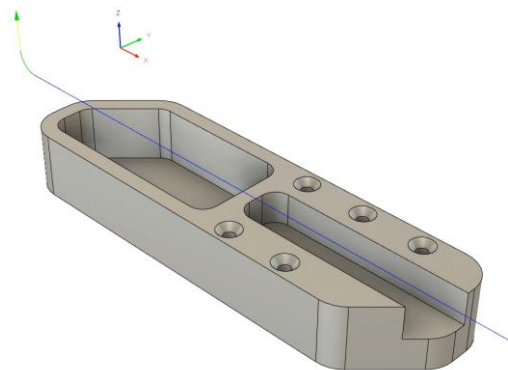
Feed height sets the height that the tool rapids to enter the part. Feed height should be set above the initial feed height and the retract peck height, subsequent offset to establish the height.



7. Continue to the Passes tab. Enter **0.5** into the Pass Extension field, then enter **0.125** into the Stock Offset field. Activate the Use Chip Thinning feature. Continue to the Linking tab and inspect the various options but don't make any changes. Click OK to generate the toolpath.

Pass Extension	0.5 in
Stock Offset	0.125 in
Stepover	3.01625 in
Direction	Both ways
From Other Side	<input type="checkbox"/>
Use Chip Thinning	<input checked="" type="checkbox"/>

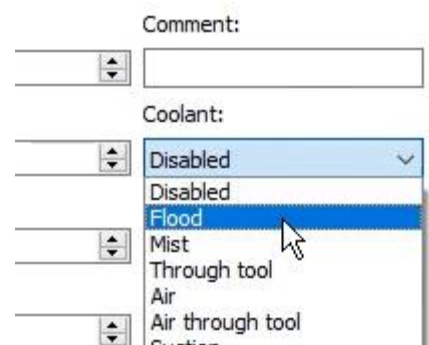
8. Inspect the new toolpath and notice that the stock is faced down to the appropriate height in a single pass.



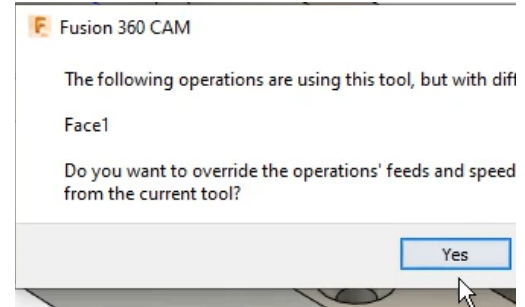
9. A tool can be modified even after it has been used in an operation. Expand the Face1 operation inside Setup1, right-click it, then choose Edit Tool.



10. Navigate to the Library dialog's Post-Processor tab, then choose the Flood option from the Coolant menu. Click the dialog's Stock to update the tool's parameters.



11. When you're warned that the operation will be affected by the tool's changes, click the dialog's Yes.



12. Use the Browser to edit Face1 and notice that the coolant is automatically turned on in the Tool tab. Click OK to close the dialog. Save the file and continue to the next module.

