Nomad 883 Pro
Quick Start Guide

Safety Warning
SAFETY GLASSES MUST BE WORN AT ALL TIMES

You agree to follow all safety standards and expectations set forth in class while using this machine.

Name:_____   **Date:_____**

Getting Started

In a few simple steps

What you need to start:

A. *Open Ended Wrench*

B. *Collet Chuck Wrench*

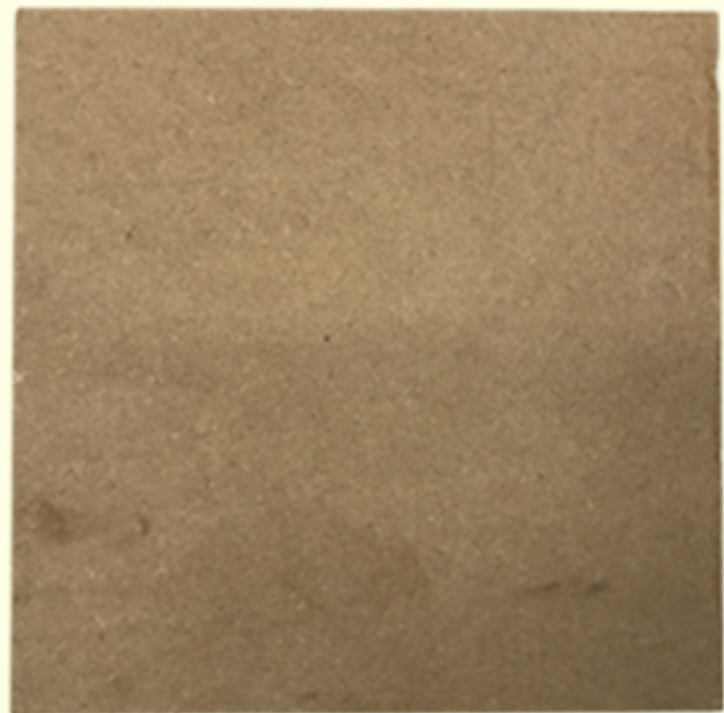C. *Milling Cutter*

D. *"Spoil Board"*

E. *Stock material*

A.

B.

C.

E.

D.

Insert Your Cutting Tool

*There are many different types of cutting tools:
End Mill, Ball Mill, Face Mill, Dovetail, Thread Mill etc.*

Steps

1. Lock the double sided wrench into the top.

2. Use the collet wrench to hold the chuck.

3. Turn the silver wrench right and collet wrench left to loosen the collet and remove any cutting tools.

4. Insert a cutting tool with about 1 inch protruding then tighten the cutting tool inside.

Proper wrench position to loosen / tighten the collet and insert a cutting tool.

Insert the cutting tool inside the collet making sure to adhere to guidelines by the manufacturer on how to place the cutting tool and then tighten the collet.

Lock and Stock

Lock your spoil board to the metal plate, then lock your work stock on the spoiler board. This is done by double sided tape, clamps or a vise.
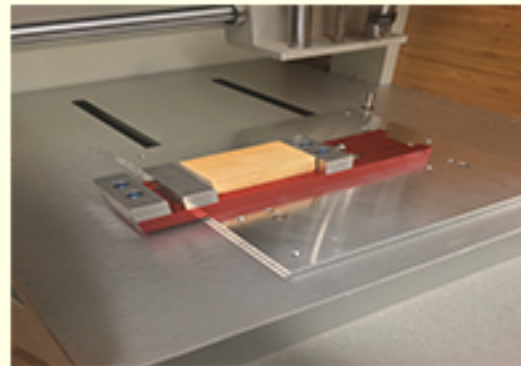
Steps

1. Align holes of spoiler board to metal board and fasten.

2. Use double sided tape or clamps or vice to fasten your work stock to the spoil board.
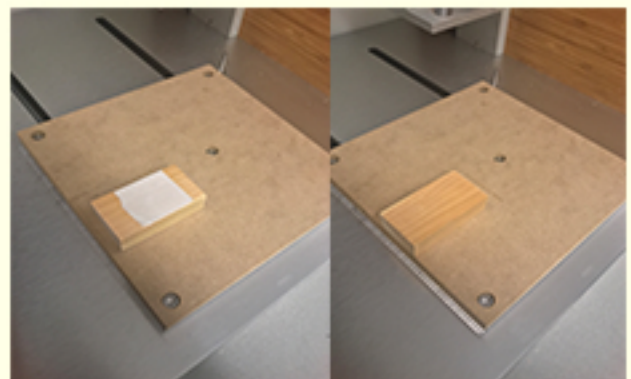
OR:
If you use a Low Profile Vise you would not need the spoil board, just tighten the vice on your workpiece.
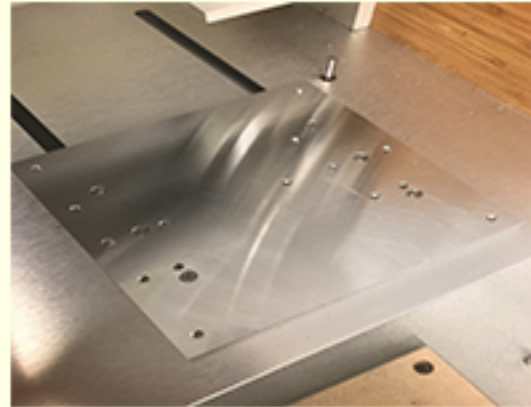
Align the spoil board holes with the metal plate holes and fasten. There are 5 larger holes to fasten to.

When using the Low Profile Vice you do not need a spoil board.

Double Sided Tape use on a spoil board. Note the bolts on the spoil board, aligned with metal plate.

Preparing Your STL File

You will need to open your stl file in meshcam to set some parameters and create a toolpath. And then save that toolpath for use in Carbide Motion.

Steps

1. File --> Open to your STL file in Meshcam.

2. Click on the define stock button, then set your options. Most times you will click "Fit to Geometry."

3. Click on the program zero button, then set your options. Most times you will use the upper left hand corner as your 0 as well as the top of the stock as 0.

4. Click Tools --> Carbide Auto Toolpath. This will set some defaults, however use the "Feeds and Speed" chart to set your options.

5. Finally hit "OK" and save your toolpath file for carbdide move.

The stock screen.

The zero should usually be at the bottom left corner at the top of the work stock.
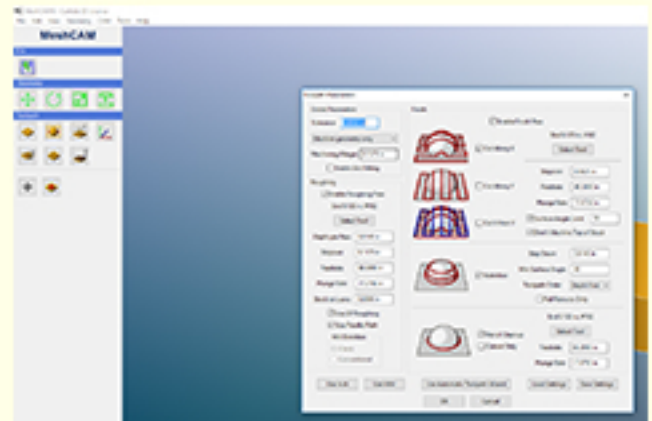
The speeds and feeds chart must be used to change / double check the numbers. Change all speeds and feeds to match the chart Hit "OK" to export your toolpath after this.

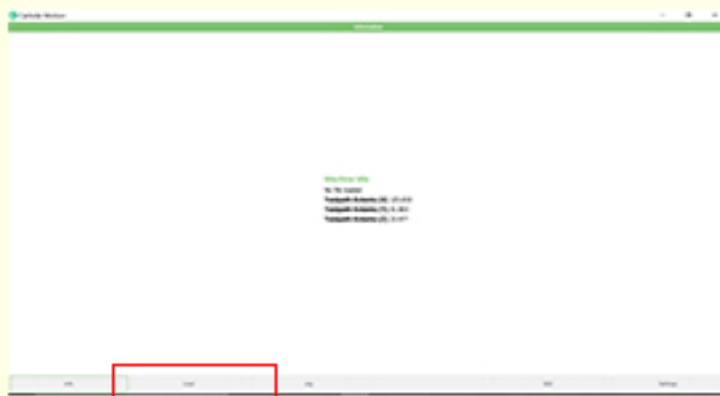# Importing your G-code to Carbide Motion

You will import your G-code to Carbide Motion, then you will "zero" the machine and start to create your part.

Steps

1. Make sure the machine is on and connected to your PC using the USB cord provided. Then click "connect cutter."

2. Now you will be at the idle screen, click on "Load." Locate the file that you created in Meshcam and load it in.

3. Next click "jog." You will jog the machine to 0,0,0 on your work stock.

4. Use the X, Y and Z buttons to move the spindle to touch the lower left hand corner of your work piece. Make sure the Z barely rests on the top of your work stock (a piece of paper should be able to slide under with friction.)

Connect Cutter

Make sure to connect cutter first. The blue light should be glowing if the machine is on

TThe idle screen will look like this, now hit the "load" button and load your G-code in.
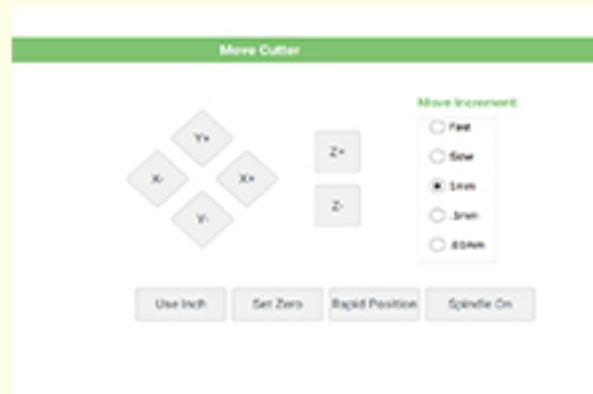
In Jog mode use the -X to move left, +X to move right, Y to move forward, -Y to move toward you and finally +Z to move the spindle up and -Z for spindle down.

# Importing Your G-code to Carbide Motion

You will import your G-code to Carbide Motion, then you will "zero" the machine and start to create your part.

The spindle in the zero position. The spindle should just be resting on top of your work stock.

Steps (continued)

5. Once the spindle is resting on top of your work stock at the lower left hand corner please hit the "Set Zero" button.

6. You will notice numbers in the boxes when you click on "Set Zero." What you should do now is click on "Zero All" and hit done.

7. We are now ready to start the machine. Hit "Run" and the machine will start. You can monitor the progress by looking at Carbide Motion.
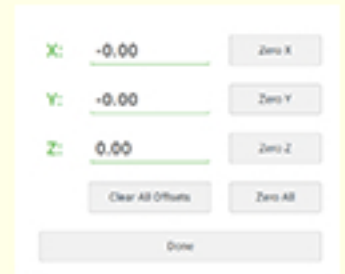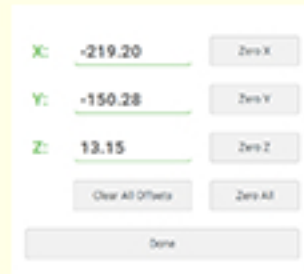
The set zero button will set the zero of the work stock. This is neccesary so we dont run out / through our stock. Hit the "Zero All" button and the numbers will turn to zeros.

Finally hit run and follow the prompts and the machine will start to machine the part.