Q & A CNC Router

Q:) What is the largest piece I can have milled out?

A:) The largest piece you can have milled is 2000 cubic inches. Note that this is the size of the blank material before it is machined, not the size of the finished model. Measure the blank by multiplying the width x the breadth x the height. Ex: a 12” x 12” x 2” foam blank equals 288 cubic inches.

Q:) What is the longest and widest run I can make on the CNC table?

A:) The working area of the CNC table is 26 ½”x 24”. Remember you cannot exceed the 2000 cubic inch limit.

Q:) What is the maximum depth I can have routed?

A:) Typical models have a maximum relief of 2 ½”. Under special circumstances we can cut as much as 4 ½” with a loss of detail and resolution. The operator will make the final determination of what can and cannot be machined.

Q:) Can I laminate material to increase the size of my blank?

A:) Yes, however, oversize the pieces being joined, so the staff can square the material to the appropriate finish size. (see figure 1). Lamination for the CNC is limited to face joining. No edge joining. Also, you must use a urethane glue to adhere the foam together. Please ask the staff to aid you in laminating your material together.

Figure 1: The finished size for this model is 10” x 10” but the material is cut to 11” x 11” and then laminated together. After being clamped-up and glued up overnight, the blank can then be cut down to 10” x 10”.

Q:) Can we cut plywood on the CNC?
A:) Yes and you can also cut solid wood and HDPE (NO MDF!).

Q:) Can I cut 3 dimensional topos into the wood or HDPE?
A:) No, we are only allowing “edge cutting” pocket passes, contour passes and drilling.

Q:) What is edge cutting?
A:) Edge cutting is following the exterior contour of an object. We can also rout out dados, laps and rabbets into your material, as shown below:

Q:) But what is the largest blank I can work with that will fit on the CNC table?
A:) The CNC working envelope is 26 ¼” x 24” but you need a 2” border on all four sides for clamping purposes. So, the biggest cutting area would be 22 ½” x 20.

Q:) How thick of a piece can I cut?
A:) The thickest dimension we will cut is ¾” and the thinnest is ½”.
Q:) Do I have to have a three dimensional drawing for this type of cutting?

A:) Yes and no, please see the staff to aid you in setting up more complicated files.

As always come by and see the staff early and often with additional questions.