

# Project Tutorial Featuring compatibility with pearly all CNC Machines.

It is our pleasure to provide our customers with fun and useful projects to enjoy!

Vectric Project Tutorial www.vectric.com

Compatible with:



Sample Carved with: **ShopBot Buddy** PRSalpha BT48

<u>SlropBot®</u> www.shopbottools.com



# **Seahorse Corbels**

Designed for Vectric<sup>™</sup> by Michael Tyler

This project features a Seahorse and Coral motif with a pierced-carve background. Each corbel consists of two halves that are glued together, then glued to an "L" frame to complete the assembly.

The corbels can be glued or fastened to a shelf for mounting on a wall (they will accommodate shelf depths of 8 to 12 inches), or used as a decorative accent for upright posts and the like. The method of mounting the corbels can vary - I used a metal key hole/screw fixture recessed in a mortise on the backside of each of the samples you see here. Feel free to make modifications to suit your particular mounting preferences and requirements. Each corbel measures about 8" deep x 11" tall x 2¾" wide.

tall x 2%4\* Wide.

Main items you will need:

- 1) The Project Files (included):
- Corbel Layout.crv3d
- L\_Frames.crv3d
- 2) Boards with the following dimensions:

- 3) Wood glue, clamps, sandpaper, wood stain and/or paint and clear finish
- 4) Optional: metal keyhole fixture mount
- 5) A Dremel-type rotary tool with assorted sanding wheels and bits to sand small details and speed up preparation for finishing.



## **CNC** Bits used for the Sample:

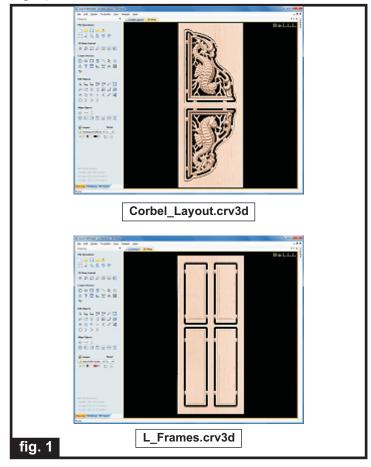
Roughing, Pockets, and Profiles 1/4" down-spiral End Mill

Pierced Pockets 1/8" End Mill

Finishing 1/8" Ball Nose

#### STEP 1 - Open and Review the Project Files

Start your Aspire software and open the project files. (fig. 1)



Carefully review all the toolpaths and make any necessary changes to suit your particular bits and machine. The toolpaths are currently set with feed and speeds that were used in creating the original sample. Please don't use them directly until you review them for your own setup.

You can edit the tools and change the settings to your own preferences and requirements. It is very important to recalculate all toolpaths after making any edits/changes. Once you have recalculated for your own machine and bits, reset the preview, then preview all toolpaths again to visually verify the project outcome on-screen.

The project is designed with tabs to hold parts in place during the final part cut outs. You may delete the tabs if you use some other reliable hold-down method.

#### STEP 2 - Run the Project

When you are satisfied with your tool settings, save the toolpaths to the appropriate Post Processor for your machine, place your material on your machine bed and proceed to run the project.(NOTE: the Corbel Layout will be run twice to yield two complete corbels. (fig. 2a, 2b, 2c, 2d)











fig. 2d

# **Seahorse Corbels**

(cont.)

#### **STEP 3 - Release Parts**

Separate all the parts from the boards with a utility

knife or small saw. (fig. 3)



fig. 3

**STEP 4 - Assemble and Final Sand Parts** Glue the corbel halves together and clamp until dry. (fig. 4a, 4b)



fig. 4a



fig. 4b

Remove the clamps, then sand off the tab remnants and sand carving details to remove any "fuzzies" and undesirable toolmarks. Use a Dremel-type tool with various abrasive wheels/tips to make detail sanding go faster. (fig. 4c, 4d, 4e)



fig. 4c



fig. 4d



fig. 4e

STEP 4 - Assemble and Final Sand Parts (cont.)

Glue the L-Frames together and clamp until dry.

(fig. 4f)





**NOTE:** You may want to plan your mounting strategy at this time. I created a mortise on the backside of the L-frame for metal key hole mounts. (fig. 4g)

Glue the corbel assemblies onto the L-Frames. (fig. 4h)





#### STEP 5 - Apply Finish

Apply your choice of finish. I had originally planned to apply an antique metallic finish to my corbel samples, but decided to wait a few days before my final verdict!

Here's what I used (so far) on the Seahorse Corbels made from Select Pine:

- Two coats of thinned Zinnser Bulls Eye Seal Coat (50% denatured alcohol and 50% Seal Coat), sanding after each coat
- Two coats full-strength Zinnser Bulls Eye Seal Coat
- Several coats of Krylon Crystal Clear Acrylic gloss

#### IN CONCLUSION

I hope you enjoyed making the Seahorse Corbels and that this project may have inspired you to create your own custom corbel designs!

Happy Carving!





fig. 4h

# **Materials Source Page**

### • 3M Radial Bristle Discs from www.mcmaster.com

(stack 3 discs at a time on your rotary tool mandrel)

**80-grit:** part # 4494A19 **220-grit:** part # 4494A18





Krylon Clear Gloss Acrylic from WalMart™

## Miscellaneous Items Purchased at Home Depot™

- Zinnser Bulls Eye Seal Coat
- Denatured Alcohol
- Paint Rags and disposable brushes
- Metal Keyhole Fixture Mount and Screws



# **Additional Resources**

#### **RESOURCES...**

There are numerous resources for Vectric software owners to make their experience with their products more enjoyable. The Vectric website includes video tutorials and more, to provide a good overview of the software products and how to use them. Please visit the Support page for a complete listing of available resources for you.

**Vectric Support: http://support.vectric.com/** 

#### **Vectric User Forum**

Every owner should join the Vectric User Forum (http://www.vectric.com/forum/) where fellow users share their experience and knowledge on a daily basis. It is a FREE service that you will surely appreciate. A handy Search Feature helps you find answers to any questions you may have. There are Gallery sections as well, where you can post and view photos of projects created with Vectric software.