

## 3-PIECE CANDY DISH

The purpose of this class is to turn a three piece dish using traditional turning tools and on lathe joinery techniques.

**TIMELINE (7-hour class)** Workshop times from 9:00am to 4:00pm.

- 30 minutes (9:00a – 9:30a) class orientation, safety rules & information.
- 6 hours (9:30a – 3:30p) three-piece dish, includes lunch (12:00p - 12:45p)
- 30 minutes (3:30p – 4:00p) clean-up and final class review at 3:50p

### MATERIALS, TOOLS & EQUIPMENT

Blanks: Ash, Maple, Cherry or other suitable hardwood:

1. One Dish blank - 6<sup>3</sup>/<sub>4</sub> round x 1<sup>1</sup>/<sub>2</sub> thick, with center marked
2. One Base blank – 3<sup>3</sup>/<sub>4</sub> round x 1<sup>1</sup>/<sub>2</sub> thick, with center marked
3. One Jam Chuck blank – 3<sup>3</sup>/<sub>4</sub> round x 1<sup>1</sup>/<sub>2</sub> thick, with center marked
4. One Spindle blank – 5 x 1<sup>1</sup>/<sub>2</sub> x 1<sup>1</sup>/<sub>2</sub> square
5. One Story Stick blank – 1/8 x 1<sup>1</sup>/<sub>2</sub> x 5

Turning tools:

3/4 Spindle Roughing Gouge, 3/4 Skew Chisel, 3/8 Bowl Gouge, 3/8 Spindle Gouge, 1/8 Parting Tool

Lathe w/ following attachments and equipment:

1. Safety glasses / face shield
2. Drive center & revolving tailstock center
3. 4-jaw chuck with #2 jaws and screw
4. Chuck screw spacer – 2” square of 1/4” hardboard with 1/2” hole in center
5. Jacobs chuck
6. 5/8 Forstner bit
7. Cordless drill and bit sized for chuck screw
8. Pencil & Ruler
9. Outside calipers with rounded tips
10. Center finder
11. Centerpunch
12. 12” x 12” square piece of drawer liner or 1/4 section of mouse pad (for use w/ jam chuck)
13. Masking tape
14. Paste wax
15. Chip brush or toothbrush (for brushing chips from off drill bits)

Complete class information/handout will be given upon class signup.

Rick Rich instructor – February 13, 2025

## REVIEW OF LATHE SAFETY RULES

- Eye protection should be worn for all turning and face shields used for faceplate turning.
- Secure or remove anything that may catch on rotating parts or accessories.
- Ensure the blank is securely mounted and locking devices are secure before operation.
- Position the tool rest close to the work. Rotate the handwheel to ensure it spins freely.
- Check lathe speed before turning on.
- The tool should always be in contact with the tool rest before the wood.
- Instead of over-extending a tool, stop the lathe and move the tool rest closer.
- Always turn off your lathe if leaving it unattended.
- Put away cell phones / devices to avoid unsafe distractions. Use them during breaks.

## PREPARING THE BLANKS

1. Prepare cordless drill with bit to fit the chuck screw.
2. Use masking tape to mark  $\frac{3}{4}$  inch on end of drill bit.
3. Drill no more than  $\frac{3}{4}$  inch deep into the center of the bowl, base and jam chuck blanks.  
*NOTE 1: Use side of spindle blank as a square to drill straight and true.*  
*NOTE 2: The drilled hole is what will be the top of the bowl and base.*  
*NOTE 3: Place a small amount of paste wax into the drilled hole. This will make mounting and removing the blank easier.*
4. Create a 5" story stick for spindle. Ensure that the top tenon is  $\frac{3}{8}$  and the bottom tenon is  $\frac{5}{8}$ .
5. Set chuck jaws to almost closed. Measure and write down outside and inside dimensions.

## TURNING THE BASE

1. Secure screw in chuck jaws, add spacer. Place base blank onto chuck screw, tighten securely.
2. True blank sides. True face of blank, turn very slightly concave.
3. Mark 2" circle on blank face and scrape mortise for expanding jaws in blank.
4. Remove blank and chuck screw. Expand chuck jaws into mortise, do not over-tighten.
5. Mark  $\frac{1}{4}$ " and 1" from headstock end on blank edge.
6. Cut away the wood past the 1-inch mark on the tailstock side.
7. Mark  $1\frac{1}{4}$  circle on face of blank. Turn cove from marked circle to the  $\frac{1}{4}$  edge mark.
8. Place Jacobs chuck in tailstock with  $\frac{5}{8}$  Forstner bit. Drill through blank.

## TURNING THE DISH

1. Mount the bowl blank onto the chuck screw with spacer.
2. True the side and bottom face.
3. Mark a line  $\frac{3}{8}$ " from the headstock side and a 2" circle on bottom face.
4. Use the bowl gouge to rough out the bowl bottom shape from the circle to the line on the edge.
5. Turn a tenon at the circle and cut slightly concave. Make finish cuts from the tenon to edge.
6. Mount Jacob's chuck with  $\frac{5}{8}$  Forstner bit and drill  $\frac{3}{8}$  to no more than  $\frac{1}{2}$  inch deep into center.
7. Mount the bowl blank onto the chuck and turn outside 1" of face clean. Then turn the bowl to a depth of  $\frac{3}{4}$  to  $\frac{7}{8}$  inch deep – use drilled hole as depth guide.
8. Place jam chuck onto chuck screw. Round over edges and concave the center slightly. Use drawer liner or mouse pad as a cushion and secure dish between the chuck and revolving center.  
NOTE: *The revolving center tip fits into drilled hole.*
9. Make careful light cuts to turn away the tenon and make a half cove detail.

## TURNING THE SPINDLE

1. Locate centers, mount the blank onto the lathe and turn cylinder of largest diameter possible.
2. Use story stick and mark top and bottom tenons.  
NOTE: *The spindle is 5 inches long, but to account for any variations of length, hold the top end (top of tenon that will go into the bowl piece) of the story stick on the tailstock end of the cylinder. The reason for holding the top end at the tailstock end is so that any extra spindle length will be at the bottom tenon going through the base.*
3. Set the outside calipers to fit smoothly over the diameter of the  $\frac{5}{8}$  Forstner bit.
4. Part the tailstock end tenon to just over  $\frac{5}{8}$  diameter. Continue parting and checking until the tenon fits into the drilled hole on the bottom of the dish.  
Hint: *If the tenon is slightly too long – as in a sixteenth or less – to fit into the dish mortise because the hole was drilled a bit shallow, just rub the tenon top on 80 grit until the shoulders of the spindle top fit perfectly onto the base of the bowl.*
5. Once the dish tenon is fitted, the blank is reversed, and the same fitting is done to make a tenon for drilled hole in the base.  
NOTE: *Make sure the shoulders around the tenons are dished in slightly for the outside edges to be in full contact.*
6. With the skew and spindle gouge, turn the details of the spindle.