

SALT AND PEPPER SHAKER INSTRUCTIONS by AL GELLER

A. BLANK

Choose a solid hardwood blank 2" x2" x10" or laminate a blank from hardwoods. If using cast acrylic plastic, glue the cast acrylic on each side with either medium or thin CA glue. Spread the CA glue on the wood and make sure the entire wood surface is saturated. Clamp the wood/cast acrylic laminations together in a vise or use clamps for at least 4 hours. I use 24 hours. For wood – wood laminations, use Titebond or similar wood glues. Make sure the center of the turning is within a wood or acrylic lamination. Avoid locating the center on a glue joint.

B. CONSTRUCTION

1. Cut the blank into 2 pieces and locate the center at each end of each blank. Use an awl and make a deep center. If you have laminated up a blank, be sure to have the center points on each end of the blank on the same lamination. Use a drill vise and drill out 1" and 3/4" holes with a Forstner and/or spade drill. Allow approximately 1/2" at the top for waste and wood above the end of the 3/4" hole. If using a spade drill, file center tip down so it is even with the outer cutter tips. The 1" hole should be about 1/2" deep for the washer and plug.
2. I use a 1" spur drive which fits into the bottom of the shaker. The top of the shaker is supported by the tailstock. If you don't have a 1" spur drive, mount the top of the blank onto a spur drive and the tailstock's live center goes into the bottom of the shaker. Turn the shaker round with a spindle roughing gouge and decorate as desired using spindle tools. Trim bottom of shaker with a parting tool if the bottom is not perpendicular to the lathe axis. Sand and part off any waste.
3. Mount a piece of hardwood in the lathe chuck and turn it down to 1" diameter so that it will fit into the bottom of the shaker. Mount a drill chuck into the tailstock and drill a 1/2" hole into the 1" round tock about 1"-2" deep. Part off 1/8" – 3/16" thick "washers" and glue them into the end of the shaker. If you used a cast acrylic laminate, put a drop of thin CA glue down on the inner plastic surfaces to "melt" them so they will become more transparent. Do this prior to gluing the washer in place.
4. Buff and finish shaker a drill 1/8" round holes for the salt and pepper.

C. ELLIPTICAL TURNING

1. Make a blank as per steps A and B 1. With a set of dividers, locate two additional centers on opposite sides of the main center. Number these 1 and 2.
2. Make a "drive jig" which should just fit into the bottom of the shaker blank. I use a nail as a spur. Rough sand paper may also work as well. Mount drive jig on to a lathe spur drive and install shaker blank bottom onto the drive jig and the shaker top into the tailstock's live center. The geometric center points are used to get a round blank. After the blank is round, turn the shaker to the desired overall shape.
3. Remount system into center #1. Turn up the lathe speed as fast as you are comfortable with (1200 rpm is a good minimum speed to obtain smooth cuts). See American Wood Turner, 2007, Volumes 3 and 4 for more on Multi Axis Turning. Carefully turn down the outer shadow line to the desired shape. Remount on center #2 and repeat. Remove from lathe and check shape. Remount in the lathe and continue turning to the final shape, switching centers as required. Sand smooth with sanding belt strips.
4. Part off waste or use a band saw to cut off waste. Sand top as required with belt sander.
5. Glue in plug washer, finish and buff.