

Tea Lights **by Nick Cook**

Photos by Cathy Wike-Cook

As simple as they might seem, these candle holders can add a wide variety of options to your line of marketable work. Using a variety of materials, sizes and shapes, you will not have to worry about getting bored making tea lights. Add to that, your ability to texture, carve, inlay, color and otherwise decorate the finished products, the possibilities are endless. And, due to the size requirements on blanks, you will find yourself utilizing more of what might be thrown away.

I started making tea lights quite some time ago a few at a time out of various woods. They became a production item several years later. After completing an order for more than 1350 Ash plates, I found myself overrun with off-fall from the project. The 1-1/16" thick ash made great honey dippers but, even as a production item, one can only sell so many honey dippers. The quest was on for another product.

In the spring of 1996, while touring and teaching in New Zealand, I discovered tea lights to be extremely popular in the gift shops and galleries. I even met the man responsible for making the tea lights and many other wood gift items so popular. He is Marc Zuckerman, a transplanted New Yorker now living in Hokatika, a very small town on the western shore of the South Island. He and his crew produce treenware, cutting boards, plates, clocks and other wood accessories. He uses only native woods and markets through gift shops and galleries all over New Zealand. The tourists from abroad love his work.

Upon my return, I started exploring the possibilities. I had plenty of material left over from the plates. Looking at all the piles of scrap, I came up with a size that would best utilize the material. I didn't really want to throw away anymore than was absolutely necessary.

Making your own tea lights

Stock selection: One of the great things about making tea lights is you can turn them from most anything. I have used ash, oak, maple, cherry, mahogany, teak, cocobolo and canarywood. And no, size does not really matter. I have started with material from three to six inches in diameter and from one to three inches thick depending on the shape I intend to make. So, pick your material and determine the size and shape you would like to make.

I start by making sure all the material is the same thickness. This makes drilling the holes easier. Next, I cut all the blanks to the same size, say four inches square. I use a sliding table on the bandsaw to save time and effort. Uniformity makes production work go easier and faster.

Once the blanks are cut to size and while they are still square, I set up stops on the drill press to locate the blanks for centering the hole. The aluminum tea light candles are 1-1/2" diameter by 5/8" high but they do vary in size. I have started using a 1-9/16" Forstner bit just to be sure the larger candles fit. Set the stop on the drill press so the depth of the hole to just over 5/8" deep as you want the candle to end up flush with the top of your finished tea light. You may wish to clamp down the blank to avoid having the bit catch and spin out of your hand.

After drilling the blanks, I cut them round on the band saw. You can use a compass and draw a circle on each one and follow the line or you can set up a jig to save more time and effort. I turned a piece of maple just under 1-9/16" diameter and about 5/8" high post with a small hole through the center. This was mounted to a piece of 3/4" plywood and fed into the bandsaw blade with the center two inches from the blade. The leading edge of the blade must line up with the center of the post or your blanks will be eccentric. Clamp the fixture to the bandsaw table and adjust the height to allow clearance for the blank. Place the drilled blank over the post and slowly rotate it against the blade to produce a perfect round.

Chucking the blanks for turning

Pressure turning or jam chucking

I'll discuss two chucking methods here for your convenience. The first is pressure turning, a technique I learned from Rude Osolnik more than twenty-five years ago. It is a fast and easy to use method for turning a number of projects without having to have a lot of extras. For the tea lights, I simply mount a piece of hard maple approximately three inches diameter by about six inches long onto a small faceplate. Rough turn to a long cone with the small end exactly 1-9/16" diameter by approximately 1-1/2" long. Apply a piece of adhesive backed sandpaper to the end of the chuck for better traction. Check to make sure your tea light blank will fit snugly over the end. As you turn your first tea light, cut a bit of relief into the chuck where it meets the top of your blank and turning subsequent tea lights will be easier.

You will also need flat disc mounted on your live center to avoid marring the bottom of your tea light. I use the Delta live center fitted with a disc I have turned of Teflon about one inch diameter. It works very well and also helps to size the bottom of my tea lights. Just place the blank over the end of the chuck, bring up the tailstock and apply pressure.

Vacuum chucking

Method two requires the use of a vacuum chuck. I have been using vacuum chucking methods for more than ten years, long before it became popular. I have used both vacuum pumps and Soren Berger's vacuum cleaner method of holding blanks on the lathe. I currently use OneWay's vacuum system including their aluminum chucks. The 3-1/2" one is ideal for tea lights. I start by placing the bottom of the blank on the chuck and use a cone tipped live center to center it up before shaping the top of my tea light. I then reverse the blank and center it to turn the bottom.

Let the turning begin

I use a 3/8" deep fluted bowl gouge to do the entire turning on my tea lights. Other tools will work just as well. I just happen to like the way it performs. Choose the tool that works best for you. Using a short toolrest, about six inches, I center the rest on the blank about 1/4" below the center and as close as possible. I start by trimming up the perimeter to true up the blank between centers. Next I go to the bottom, leaving approximately one-inch diameter by 1/16" high flat base. You can make yours larger, smaller or leave no base at all. I work from the bottom out towards the rim using a shearing cut with the bowl gouge to create the desired shape. Now you can go to the top and again cut from the center out to the rim leaving whatever shape you like. Once shaped, you can begin sanding with either a power sander or by hand. I use a 3" disc of 180 grit sandpaper mounted on a drill motor to power sand for starters. Then I proceed to 220 grit, 400 grit and finish up with 600 grit. The

finish, Briwax, is applied with 0000 steel wool and then buffed with a soft cloth or paper towel. After removing from the lathe, I use the Beall Buffing System for final finishing. Drop the candle into the whole and you have a finished tea light.

If you are using the vacuum chuck you will need to flip the blank over in the chuck after turning the topside. I true up the blank first, shape the top and then sand and finish the top before reversing it. You will need to use care when you flip it over and center the blank. Once you have done a few, it seems to happen automatically.

Be very careful if you do not have experience with a vacuum chuck. Make light cuts because it is very easy knock the blank out of the chuck with only a slight catch. Use finesse in making your cuts to avoid those nasty little catches.

Fire safety

Do not under any circumstances use a bare candle in your candleholder. Use this candleholder only with aluminum cupped tea light candles to avoid fire hazards. Do not place near combustible materials. Do not heat any vessel with this candleholder. Do not move tea light while wax is liquid. Never drop foreign objects such as matches into tea light. Never leave any burning candle unattended. Keep out of reach of children. Enjoy your tea lights.