

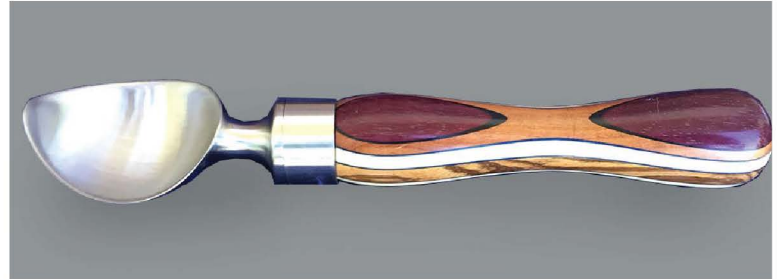


Designing and Turning Laminated Handles

Introduction

Designing and turning laminated handles for utensils can be very exciting. There is an infinite combination of wood colors, character, and veneers to mix and match to create interesting designs. I have found that laminated handles are not only fun to turn, but sell quite well.

There are several ways to approach the designing of handle blanks. In this instructional handout, five ways to do this will be discussed. The gluing technique is quite similar for each.



NOTE: In addition to using the laminated blanks to turn handles, the blanks can also be used to turn bottle stoppers, candle sticks, spinning tops, small boxes, Christmas ornaments, goblets, rolling pins, small bowls, etc. There is a gallery of laminated turnings at the end of this handout.

Wood and Veneer Selection

The wood used for lamination is kiln dried. Wood is selected for its color, such as redheart, purpleheart, bloodwood, yellowheart and holly, or for its grain pattern such as bocote, canarywood, spalted tamarind, black palm and zebrawood. Solid color veneers are used in single or multiple pieces together, or in combination with other woods. Colored veneer enhances the appearance of the final product by outlining and highlighting the adjacent woods.



Cutting the Wood and Veneer

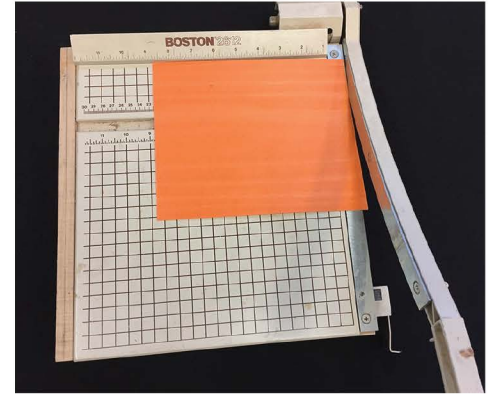
Cut the wood on a table saw using a thin-kerf 30 tooth rip blade. The table saw blade provides a smooth cut that does not need sanding. It is important that a sharp blade be used. Keep several strips of various kinds of wood cut at 1/8", 1/4", 3/8" and 1/2" wide, 12 1/2" long and 1" to 2" deep. These are available to be used when trying to decide which woods to combine. A variety of strips facilitates designing the blank.

Cutting and Gluing Wood and Veneer



I have made several push sticks from plywood to cut 12 1/2" long wood into thin slices.

Most veneer is thin enough to be cut with a paper cutter.



Gluing Techniques



Bessey clamps and Tite Bond III glue is used to clamp and glue the wood and veneer to create the handle blanks.

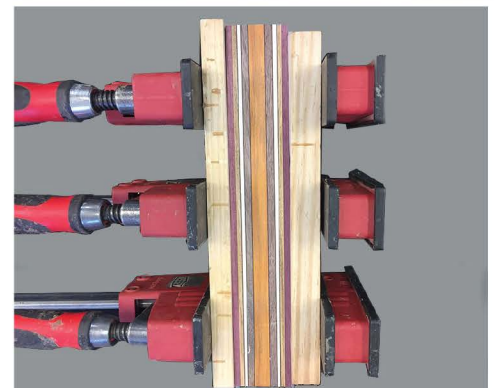
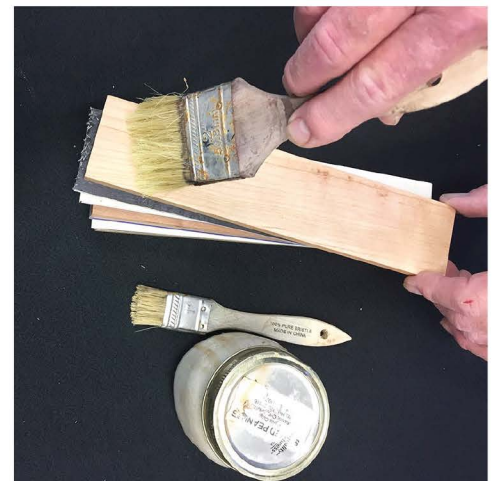
There are several different types of clamps that would work well for gluing the handles. Bessey clamps are used because I have had consistent success with them. Tite Bond III glue is used because it has an open time of 10 minutes. There are other glues that would also work, but their set times may vary. Inexpensive disposable brushes with bristles trimmed shorter are used for applying the glue. They can be rinsed and reused. It is recommended to apply the glue to both sides of the wood and veneer.

NOTE: When using ebony, first wipe it with acetone to remove oil from the gluing surface. This assures a better bonding of the wood. This is the only wood I do this to.

Wax paper is used to protect the clamps from the glue. Three to four clamps are used to glue the 12 1/2" long blank.

When gluing several pieces together, make sure the ends are even and all the pieces are level on the clamps. I use scrap wood on both sides of the blank being glued. This helps spread the pressure from the clamps.

Note: The strongest bond is achieved by gluing face or side grain together. The weakest bond is when gluing end grain to end grain. When it is necessary to glue end grain, I always insert a piece of side grain or veneer between the two ends.



Cutting and Gluing Wood and Veneer

Handles

Handles are turned for such items as ice cream scoops, letter openers, bottle openers, pizza cutters, cheese planes, pepper mills, and cake servers, to name just a few. The handles are turned from different size blanks. Depending on the size of the handle to be turned you will want to start with a 1"; 1 1/2"; 2" or 2 1/2" square blank 6" or 12 1/2" long.

A 12 1/2" long blank is generally used. Although most of my handles are approximately 6" long, I have found that it is just as easy to glue up a 12 1/2" blank as it is to glue up a 6" blank. After gluing the 12 1/2" blank, it can be cut in half to make two handles. Use of a 12 1/2" long blank also provides an 1/2" extra wood to trim the ends even.

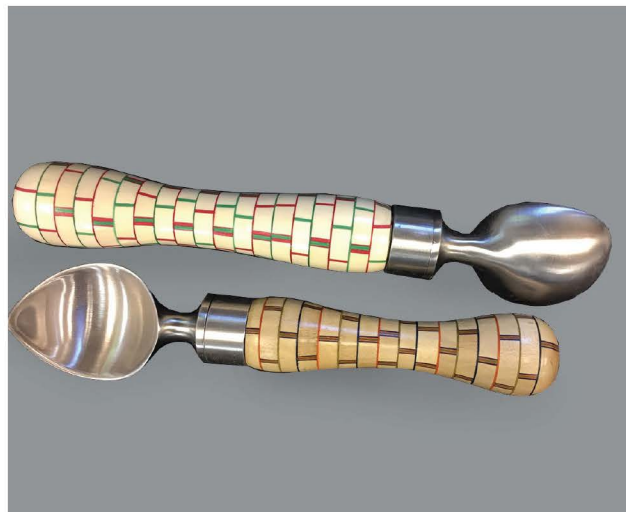
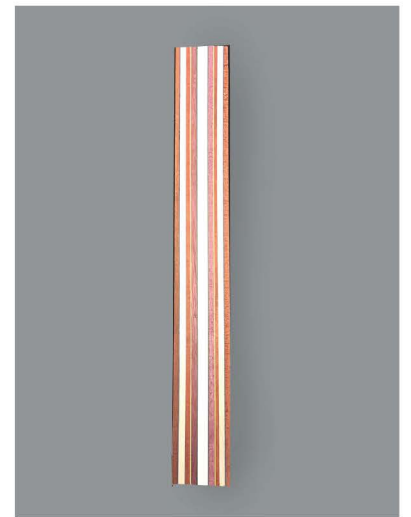
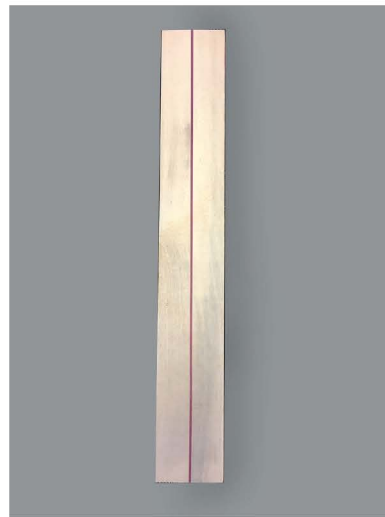
There are, however, some utensils that require longer or shorter handles and will need the appropriate size blank.



Designing Handle Blanks

There are five different approaches used when designing handles. They are listed below and will be discussed further in detail.

1. Cutting the blank in the center and inserting wood and/ or veneer
2. Gluing several strips of wood together
3. Building out from a central core
 - a. Laminated core with contrasting wood
 - b. Solid wood core with contrasting wood
 - c. Solid wood core with laminated wood
4. Using a laminated blank
5. Using horizontal inserts

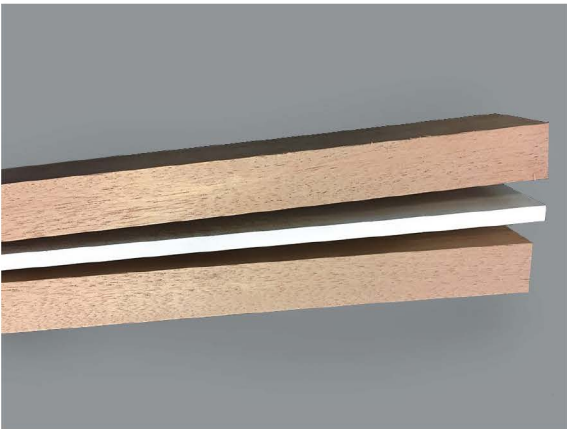


1- Cutting Wood Blank in Center and adding wood /veneer

Once the size of the blank has been decided upon, cut it on the table saw, through its center length with the grain. The blade will reduce the width of the blank by the thickness kerf of the blade.

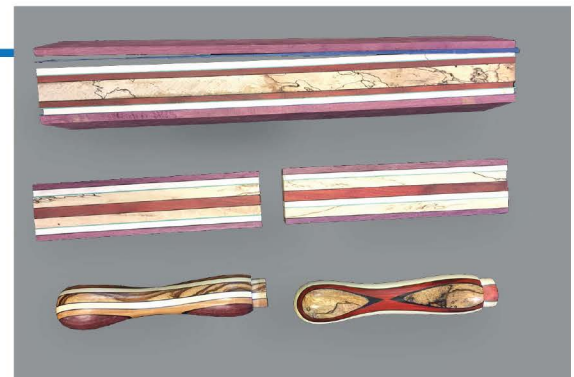
Insert a piece of wood and or veneer into the center length of the blank. The insert needs to have been cut to fit. If the piece of wood or veneer is wider than the kerf, it will change the width of the blank.

The blank can also be cut again through the center length on its other sides and wood /veneer can be inserted, thus having a strip running down all four sides.



2-Gluing several strips of wood together

Several strips of wood can be glued together to create the desired size for the handle. The strips can be of various thickness, but need to be the desired length and depth. For example, if you are turning a 1 1/2" handle 6" long, you will need strips that are 6" long and 1 1/2" deep. The sum of strips should be 1 1/2". This will give you a blank that is 1 1/2" x 1 1/2" x 6". Thinner strips should be put on the outside of the blanks if you want to turn teardrop shapes in the handle.



3-Build out from a central core

- Laminated core with contrasting wood
- Solid wood core with contrasting wood
- Solid wood core with laminated wood

A 2" x 2" x 6" handle blank can be created by starting with a 1" x 1" square piece of wood cut 6" in length. Add to this a piece of veneer and a 1/2" x 1" piece of contrasting wood 6" long on opposite sides of the blank. You now have a blank that is 1" x 2" x 6" in length.



Once the blank has been glued and the glued surfaces cleaned. (A joiner or planer can be used to clean the glue off the surfaces of the blank.) glue the same type of wood that is 1/2" x 2" x 6" on the other two sides of the blank. Veneer can be added if desired. You now have a finished blank that is 2" x 2" x 6" long.

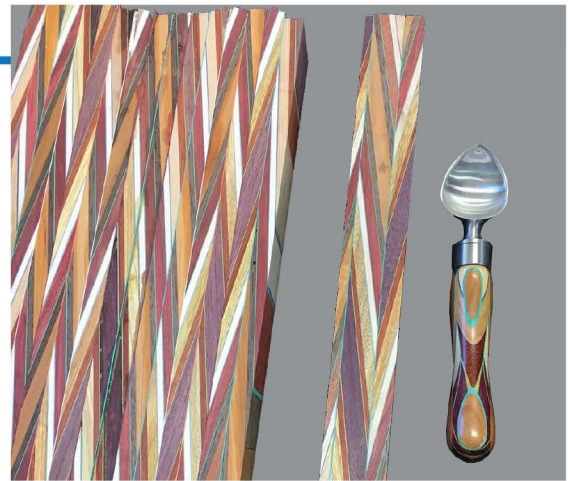
Instead of a solid piece of wood, a laminated piece of wood can be used as the core and contrasting wood can be glued around it as discussed above.

Another approach is to start with a solid piece of wood for the core and use laminated wood to glue around it.



4-Using a laminated blank

The handle can be made from a laminated blank. This is accomplished by creating a blank of glued-together wood and veneer strips. A convenient size is 2" x 12 1/2" x 12 1/2" blank. Once this larger blank is glued and the surface on both sides have been cleaned using a planer, the blank is cut lengthwise into 1" strips at a 10 degree angle. Every other piece is turned over to form chevrons. These are glued back together again, usually with a piece of veneer between each piece. The width of the blank after cutting 1" wide strips will be reduced by the blade cuts.

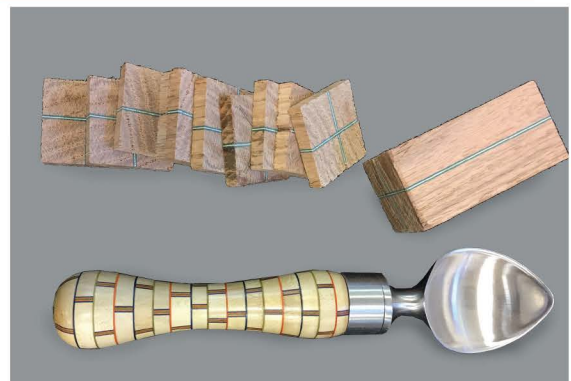


The final blank is cut to the size needed for the handle.

5-Using horizontal inserts

Another way to laminate wood is to cut the wood across the grain. Wood and or veneer can be inserted in the cuts. By using inserts, you are then gluing end grain to side grain, which is much stronger than gluing end grain to end grain.

If the blank has already been prepared with inserts running the length of the piece, adding horizontal inserts can result in a dramatic piece.

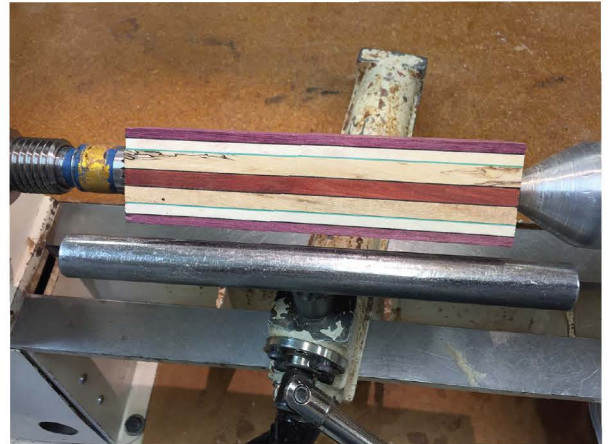


Turning the Handle

Depending on the utensil for which the handle is being turned, an appropriate size hole is drilled in one end of the handle blank. The blank is then mounted and turned between centers to a cylinder.

If a ferrule is being used, a tenon is turned to accept the ferrule. I use a spindle roughing gouge to turn the bulk of the handle. The front is sloped toward the ferrule and the end is rounded with a spindle gouge.

As the handle is turned, the laminated wood begins to reveal its colors and shapes. How much is turned away will affect the final design. I like to have the narrowest diameter of the handle $\frac{2}{3}$ of the distance from the front of the handle.



Finishing

After sanding to 400 grit, I use an oil/varnish on the handle. After letting it dry overnight, lightly sand with 600 grit and apply a second coat. After letting the handle dry again overnight, buff with tripoli, white diamond and wax.

Another way to finish the handle is to use a slow drying, odorless CA glue from Parson Adhesives. This is applied while the handle is mounted between centers. The lathe is set on slow speed and the CA glue is applied to the handle directly from the bottle with a paper towel spreading it evenly and removing any excess. The handle is then buffed with vonax (a wax with a grit in it).

This results in a handle with a hard finish that is water proof.



Sources:

Wood-

World Timber, Hubert, NC, worldtimbercorp.com

The Hardwood Store of NC, Gibsonville, NC,
hardwoodstore.com

Veneer-

Sauers Veneer, Lexington, NC, sveneers.com

Glue –

Home Depot, Lowes, Walmart, Chapel Hill, NC

Parson Adhesives, Rochester, MI, parsonadhesives.com

Brushes-

Harbor Freight, harborfreight.com

Utensil hardware-

Chefwarekits, Merrimack, NH, chefwarekits.com

Gallery of Laminated Turnings



Gallery of Laminated Turnings (continued)

