

Brush Up on Your Turning

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American Association of Woodturners

By Nick Cook

Dust has been around since the beginning of time. And for reasons not completely understood, some folks make it a lifetime goal to eliminate dust from all surfaces.

Woodturners to the rescue! You can turn any one of these brushes for dusting or any number of household chores. They're especially handy to sweep those crumbs from computer keyboards.

You, on the other hand, may see a barbecue brush leaping off this page. All right! Whatever style strikes your fancy, the end product makes a great gift item for friends and family.

The turning is straightforward and can be completed quickly and efficiently. Some of the examples shown here are tastefully accented with just a touch of chatterwork. Others incorporate a second wood.

Like most any project, there are a number of methods you might use to make these brush handles. The shape of the handles and types of brushes you turn are limited only by your own imagination.

As a production woodturner, I focus on what I know to be quick and efficient to turn. And to what I know will sell. These sell.



By incorporating bristle tufts in diameters from $\frac{5}{8}$ " to $1\frac{3}{8}$ ", you can turn a variety of brushes for household and kitchen use.

Get started

For lathe tools, you need a $1\frac{1}{4}$ " spindle roughing gouge, $\frac{3}{8}$ " spindle or detail gouge, and $1\frac{1}{4}$ " skew.

At the lathe, you'll need a Jacobs chuck, a live center, and a Forstner bit to match the tufts.

Be sure to order the tufts in advance of starting your handle projects. Two sources are Craft Supplies (woodturnerscatalog.com) and Woodchuckers' Supplies (woodchuckers.com). The tufts of Chinese hog bristle come in a

variety of sizes from $\frac{5}{8}$ " (about \$6) to $1\frac{3}{8}$ " (about \$10), large enough for heavy duty-dusting and cleaning. Some bristle tufts are sold exclusively for dusting while others have been sterilized for kitchen use.

Before you start turning a fistful of handles, use scrap or inexpensive material until you become comfortable with the turning steps. I almost always use poplar or soft maple for my prototypes.

Then select a hardwood for turning your handle. For all but the 1 $\frac{3}{8}$ " brush tufts, I use material that measures approximately 1 $\frac{1}{4}$ " square. A 7" to 12" finish length is popular for basting brushes.

For dust brushes with 1 $\frac{3}{8}$ " tufts, select stock that is 2" square. The step-by-step photos on these pages show a 10"-long basting brush with $\frac{7}{8}$ " tufts.

Shape your handle

Locate and mark the centers on each end of the blank. Then make a dimple with either an awl or an automatic center punch at each end. Next, mount a $\frac{7}{8}$ " Forstner bit in a Jacobs chuck and place it in the Morse taper of the headstock.

Mount the turning blank between the Forstner bit and the live center in the tailstock. Lock the tailstock in place on the lathe bed and advance the quill to where the live center supports the right end of the workpiece.

Adjust the tool rest to a position parallel to and approximately 1" from the workpiece. Lock the tool rest in place.

Use the adjustable wrench to hold the workpiece with handle



1 Use an adjustable wrench resting on the tool rest to hold the workpiece while drilling a socket in one end.



2 Use a spindle roughing gouge to turn the square workpiece into a cylinder.



3 With a skew, make a peeling cut across the bristle end of the handle.



4 Complete most of the detail work with a $\frac{3}{8}$ " or $\frac{1}{2}$ " spindle gouge.

Photos: Marisa Pruss

resting on the tool rest. Turn on the lathe at approximately 500 rpm and advance the quill into the turning stock (**Photo 1**). After you drill to the depth of about $\frac{5}{8}$ ", stop the lathe and remove the wrench

from the workpiece. This will be the socket to accept the brush tuft. Adjust the tool rest to a position parallel to and about $\frac{1}{8}$ " from the workpiece. The Forstner bit will act as a drive center for shaping the handle.

Turn the lathe speed up to a comfortable speed and use a 1 $\frac{1}{4}$ " spindle roughing gouge to rough down the workpiece to a fully rounded cylinder (**Photo 2**). Then switch to a $\frac{3}{8}$ " spindle gouge or skew to make a peeling cut across the left end of the workpiece where the tuft will be inserted (**Photo 3**). Now you can shape the rest of the handle to suit the intended use and fit of the hand (**Photo 4**).

Use care near the end with the tuft hole to avoid cutting into where the tuft will be fitted.



Photos: John Heitherington



5 Sand the handle with 150 grit, then 180 grit and finish up with 220 grit.



6 Apply a penetrating oil with paper towels. (Cloth rags present a safety hazard.)



7 With a skew, separate the waste from the tailstock end.

Sand and finish

After turning the shape you desire, sand the handle with 150-grit sandpaper (**Photo 5**). Continue the smoothing process by working through 180 and then 220 grits. To eliminate cross-grain scratches, stop the lathe and sand with the grain with 220- and 320-grit sandpapers. (Wipe the handle with mineral spirits to reveal scratches.)

Apply your favorite finish. I apply a coat of penetrating oil (Behr's tung oil finish is my current favorite) because it goes into the wood and does not merely lay on the surface (**Photo 6**). Sand again with 320-grit sandpaper and apply a final coat of finish as directed on the product label.

After the finish is dry, apply wax and buff the surface. Use a skew or spindle gouge to separate the handle from the waste at the tailstock end (**Photo 7**). Lightly sand and finish the end.

Blow out any dust or debris left in the tuft socket. Then apply either epoxy or thick cyanoacrylate (CA) glue to the inside of the socket, and push the tuft in until it bottoms out. Avoid using too much glue, as it is difficult to remove squeeze-out after you have fitted the tuft in the brush handle.

Custom Artist's Brushes

Tim Heil, a member of the Minnesota Woodturners Association, has turned several artist's brushes. His search for ferrules and tufts took him to the FM Brush Company (fmbrush.com), where Tim learned about wild boar hair from China and kolinsky mink hair (sable) from Siberia. "The brushes I got from Tim are excellent," says Remedio Rapoport, a Portland painter. "Tim's handles are wonderful because normally this type of specialty brush is only available with the metal ferrule holding the hairs in place without a wooden handle. The rounded shape is useful as the brush is often given small twists to pull long, straight lines."



Photo: Paige DeWees

High on Hog Bristle

When you browse woodturning catalogs for brush tufts, you'll find hog bristles to be the most popular offering. Hog bristle (or Chung King) is fairly expensive and scarce; it is the best natural material for a wide variety of brushes. Tufts of Chinese hog bristles have been used for more than a 100 years to make brushes used for painting, dusting, and basting. Each strand of bristle has a natural taper from the butt end to the tip. The tip of each bristle is naturally split into two or more branches called the *ag*. It is resilient and the stiffest natural material available. Hog bristle does not produce static electricity and is nonconductive. —Nick Cook

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