



## Turning Wooden Bangle Bracelets

by Bill Kloeping, April 2007



Blank (plank) size depends on the desired final size of the bangle. I start with a 3-1/2" square to make a bangle with an inside diameter of 55-65 mm but larger/smaller bangles may need larger/smaller blanks. Thickness of blank can vary but 5/8"-1" is a good size. You will need to know the final inside dimension to fit the target wrist – a few mm makes a big difference. My wife's bangles are 57 mm –59 mm ID (small).

- 1) Cut a square blank 3/4" x 3-1/2" x 3-1/2". Carefully find and mark the center on both faces (use a center punch). The goal is for the center mark on both faces to line up when drilled.
- 2) With a compass, draw a circle on both faces that is slightly LESS (1-2 mm) than the desired inside diameter of the bangle. Err on the small side to allow for mis-aligned circles on each face and to allow you room to sand/smooth the inside of the bangle. For a final ID of 58 mm I typically draw a circle that's about 56 mm in diameter (28 mm radius).
- 3) Drill a hole through the center mark. The hole should be sized appropriately for your screw chuck and the wood used. I usually use a 29/64" bit for most woods (15/32" in softer wood).
- 4) Mount the blank on the screw chuck. Note: I set my screw chuck out from the normal position in the chuck to allow sanding on the inner face. When mounting the blank, keep the blank perpendicular to the screw so the blank will spin without wobbling. Use of a jig or the tailstock with a cup center can help keep the blank square to the screw when mounting. Turning the entire chuck/screw into the blank is easier than turning the blank onto the screw.
- 5) Using a bedan or parting tool, cut a wide groove straight into the face about 1/2 way into the face of the blank keeping the cut INSIDE the circle drawn on the face. The width of the groove is not important – I cut about 1/3-1/2 way between the circle and the screw.
- 6) Measure the outside diameter of the groove (for reference in step 8)
- 7) Remove the blank from the screw and remount it to cut a groove on the other side of blank.
- 8) Repeat the step 5 groove cut on the other face. Take care to not cut too deep (don't part the blank from the screw!). Measure the outside diameter of the groove and match the diameter to the diameter of the groove on the other face (measured in step 5).
- 9) Turn off the corners of the blank to make it round and then shape the outside of the bangle. Shearing the corners off from the face is easier than attacking the corners directly. The shape of the outside is a personal preference – oval, doughnut, indented, and beaded shapes all work. You may need to run a parting tool along the faces to square/remove any wobbles.
- 10) Sand the outside and edges of the bangle. I usually start at 240 grit and go to 1000-2000 grit.
- 11) Finish the outside of the bangle completely (dye/ink, CA, Woodturners Finish, etc.) – your choice. I typically put a thin coat of CA on the bangle followed by Woodturners Finish.
- 12) Using a bedan or parting tool, part off the finished outer ring from the blank center (and screw chuck) by continuing to cut the groove made in step 8. You'll hear the cutting sound get lower in pitch when you're almost through to the cut on the other face. There will be a rough ragged ridge and/or step offset to sand off in the center of the ring. This is normal.
- 13) Remove the chuck from the lathe and insert the drive spur and mount a sanding cylinder between centers and sand down the ridge inside the bangle, then smooth the inside surface of the bangle. Keep rotating the bangle as you sand to avoid flat areas. Test or measure the inside diameter of bangle – if too small, continue to sand inside until desired size is reached.
- 14) When done sanding, apply final finish(es) to the inside of the bangle by hand. I usually buff the inside and outside of the bangle with carnuba wax after the Woodturners Finish dries.

To make a sanding cylinder, cut a thick wooden dowel to about 18" length (diameter and length aren't critical as long as bangle can fit on it). Use Rubber Cement to glue 1"-2" wide strips (wider is better) of various grit sandpaper around the dowel. A 4" long strip will wrap nicely around a 1-1/4" diameter dowel. I typically use 80, 150, 240, 320, and 400 grits on my sanding cylinder. Using Rubber Cement allows strips to be replaced easily and the dried glue can be easily rubbed off of the dowel.