

Twisted Box (a la M. Hosaluk) by Gary Miller

Jan 2015

1. Determine approximate size and shape and draw full size on graph paper
2. Draw a centre parting line (2 halves of box) and additional cut lines (tangential to outside curve) at 2 or 3 more locations.
3. Cut a paper template for each side of the box (if both sides are identical only 1 template is required)
4. Draw a full size cylinder (about 2" longer than the actual box will be) and slightly larger diameter.
5. With scissors, cut the tangential lines through the templates(s) and draw a centre line through each segment. Scotch tape each segment in order, aligning the centre lines (each segment nearly touching the adjacent one allowing saw kerf space).
6. Draw tapering straight lines on either side nearly touching each segment. This will determine the basic taper on each end of the cylinder to be turned.
7. Turn a cylinder about 2" longer than the finished box length and a little larger in diameter. Dovetail each end for chuck mounting. And part the cylinder in half.
8. Mount side1 of the cylinder in a chuck (best to use a spindle steady as well). Drill 1" hole about 1/3 of the depth of the first segment. Using your favourite end grain hollowing tool, turn a slightly tapered, round bottomed hole about 3/16" short of the depth of the segment. Leave 3/8" wall thickness at the opening. Sand and finish the inside only. Turn a 3/16" deep by 1/8" rebate (female side of box joint).
9. Remove "steady" and bring up the tailstock with a large cone on the live centre. Turn to taper (per your drawing measurements using calipers to determine proper diameters along its length It should be about 3/4" at the headstock end (plus about 1" of waste wood for the chuck mount).
10. Remove wastewood "wedges" (by hand or on a bandsaw using sacrificial supports to keep it level)
11. Repeat steps 8, 9 &10 on side2 (remember the "male" side of the box joint and make sure it's a good fit)

12. Flatten each end of each segment (except for box joint ends) using a disc sander or sandpaper glued to a piece of MDF.
13. Decide on orientation of each segment and “rub/glue” the joints together using Titebond glue
14. Finish shaping (carve, disc sander, drum sander, Dremel etc) final sand by hand and apply finish of choice

Note: Use your imagination to decide what the final box will look like. Make side1 and side2 different lengths and/or make compound curves (like a cow’s horn)



