

Lidded Box Process

Mark center of each end and mount between centers. Turn to round cylinder and create a tenon at each end. Mark cut line between top ($\approx 40\%$) (at headstock) and bottom ($\approx 60\%$) and separate top from bottom with thin parting tool to preserve grain continuity.

Clean off the exposed face of the top. Remove as little as possible.

Begin hollowing the box top, working from the center outward with a sharp spindle gouge. Leave enough near the edge for the lid flange.

With a sharp square-end scraper, cut the flange about 1/4" deep into inside of the the lid. Be sure the sides are parallel to each other, essential for a good fit with the bottom. Check this with inside calipers. Flange can flare inward just a hair but an outward flare is fatal.

Clean up interior of lid with round scraper, sand, and apply finish.

Measure the depth of the lid and mark the approximate finished height on the exterior with allowance for thickness of lid. Use the thin parting tool to establish a marking cut., then remove top from chuck.

Chuck up the piece for the bottom of the box. Clean up the face of the top removing as little as possible to help preserve the grain alignment.

Make a sharp but shallow clean cut inward about 3/16" from the end to begin forming the inside flange. Do NOT try to make the flange fit into the top just now. Taper it so the lid will just barely begin fit on the outermost end, then stop!

Begin hollowing the inside of the bottom with the spindle gouge and scrapers. Sand as needed and apply finish to the interior only. You want to complete the interior before refining the fit of the flange into the top.

Now improve the fit of top and bottom to get a firm friction fit that will permit the top and bottom to be turned together as a single piece to complete the exterior shape.

Put the top onto the bottom, aligning the grain, and bring up the tailstock to hold them together. Turn the exterior shape as far as possible with the tailstock in place.

Remove top and refine fit of top to bottom for desired fit. Apply finish to bottom flange.

Cut off bottom and form jam chuck for top (not bottom) with remaining wood. Put top on jam chuck and complete shape, sand, and finish.

Reduce jam chuck to fit the bottom, put it on the jam chuck, and refine bottom of bottom. Sand and finish.

Resources

Michael Stafford has written up a very nice 30-page PDF on turning lidded boxes which you can find and download by copying this link (still good on 2/10/15) into your browser:

<http://www.teknatool.com/projects/MikeBOX/Turning%20an%20End%20Grain%20Lidded%20Box.pdf>

Michael's write-up includes numerous photos of the process and also follows much of Richard Raffan's general process.

High Speed Tool steel pieces for scrapers, etc: Cheapest I've found is from Enco, pretty reasonable prices.

<http://www.use-enco.com/CGI/INPDF?PMPAGE=162> this page has the 8 inch long square bits in 1/4, 5/16, 3/8, and even 1/2 and 5/8. Also the 1/4 x 1 x 6 inch I've made into a hand scraper for off the lathe work. This link was working 2/10/15.

Richard Raffan's book and video on box turning are as good as it gets. The book covers all the basics as well as the pitfalls and mistakes, and has a wonderful selection of examples. A purchase you won't regret.

YouTube surely has plenty of box-turning videos. I haven't looked into them but I'm sure they are the usual mix of the good, the bad, the ugly, and the dangerous.

Search google images for "turned wooden boxes"