

BONNIE KLEIN
TURNING A BASIC THREADED BOX



1. Start with a cylinder of material approximately 2" diameter and 3" long. Choose material with grain lines parallel to the piece all the way around.
2. Attach to a faceplate glue block (or use a chuck) with the grain parallel to the lathe bed.
3. True the sides and flatten the end (the bottom).
4. Part off the base leaving a minimum of 1" for the lid section.
5. Excavate the interior of the lid, leaving a minimum 1/8" thickness at the top and 1/4" wall thickness.
6. Prepare the interior wall for the threads by turning an area at least 3/8" long with parallel sides.
7. Make a clearance cut where the threads will start. It needs to be the depth and width of one thread, with a bevel for the first thread.
8. All sanding and finishing should be done before cutting threads.
9. Cut a minimum of 5 rows of threads about .025" deep. Flow the very thinnest CA glue sparingly only into the cut to provide strength to the threaded area.
10. Cut again to full depth creating threads that have no flats on the tips. Could be another .010-.015" for 16tpi.
11. Clean up the threads if needed with light sanding.
12. Mount the base on another faceplate and true up the sides.
13. Cut a 1/4" long tenon, leaving a shoulder. The diameter of this tenon is determined by measuring across the female threads and adding 3/64". (Max is 3/64", min is 2/64")
14. Cut a bevel across the corner where the threads will start.
15. Excavate the interior leaving a minimum of 1/8" for the bottom and 1/8" thickness where the threads will be cut. Don't turn the outside yet.
16. Sand and finish inside before cutting threads.
17. Cut threads up to the shoulder, about .025 deep and try the fit. Apply the thin CA glue as before and cut deeper if needed. The depth of these threads is determined by the fit, not by how they look.
18. Screw the lid onto the base and shape the top and sides of the box as desired.
19. Work on bringing the grain into alignment by reducing the shoulder on the base of the box. If you need to reduce it by more than 1/2 turn, you may run out of threaded area and will then need to extend the male threads. The shoulder is what the lid needs to bottom out on, not the end of the threads.
20. Bring the grain almost into alignment, but not all the way. Depending on the wood, 1/4"-1/2" short should be close enough. (After the box has had a chance to acclimate for a few days, lightly sand the lid rim on a flat surface to bring the grain into exact alignment.)
21. Sand and finish the exterior of the box.
22. Reverse chuck the base either on a friction fit tenon or by cutting female threads for the base in a scrap piece of wood.
23. Shape, sand and finish the bottom of your box.