

Turn a Large Platter, Process Steps

(Cutting–Edge Results with Negative-Rake Scrapers)

1. Mount the blank workpiece on a faceplate. A 15-inch diameter blank should be about 2 inches thick. The faceplate provides a very secure mounting which minimizes vibration.
2. When turning a large platter, torque is more important than speed. Set the lathe drive pulleys to the lowest speed (RPM) range so the lathe generates its greatest torque.
3. True the outer 3 to 4 inches of the upper face of the platter (the face on which the faceplate is mounted). This establishes the location of the upper face of the platter, which you must do before beginning to shape the bottom of the platter.
4. Remove some of the excess wood around the outer 3 to 4 inches of the bottom face of the platter to better balance the workpiece and reduce vibration.
5. True the outer edge (rim) of the platter, eliminating all flat spots.
6. Cut the foot, and the recess by which the platter will later be remounted to turn the upper face. Cutting the recess accurately is a critical operation. If accurately cut, the recess need be only about 1/8 inch deep. (Use this technique for **dry wood only!!**) The diameter of the recess should be just large enough for the fully-closed dovetail jaws of the chuck to fit into it. This will ensure that when the jaws are expanded into the recess, the contact area between the jaws and the wood is maximized. Use a scraper to cut the recess. Grind the scraper to the same profile as the dovetail jaws so the shape of the recess exactly matches the shape of the jaws. Leave the area inside of the recess unfinished. It will be turned last.
7. Cut the area from the foot to the rim, creating a smooth ogee curve, leaving the rim approximately 3/8 inch thick.
8. Using a negative-rake scraper, scrape the area from the foot to the rim to remove any irregularities and tearout. Resharpen the scraper frequently. Only the burr should be cutting, and when the burr is worn away, the scraper will produce more damage than good. Careful scraping will dramatically reduce sanding. Sand the area from the foot to the rim.
9. Remove the platter from the faceplate. Drill a guide hole at the center of the upper face of the platter to a depth within approximately 1/2 inch of the underside. The hole will provide a visual indicator of remaining thickness as the upper face of the platter is being turned. Remount the platter on the chuck with dovetail jaws, using the recess created in step 6.
10. Turn the upper face of the platter. Scrape the entire surface to “fine-tune” the shape and remove any irregularities and tearout. Sand.
11. Turn the platter back over. Remount it using either a vacuum chuck or Cole jaws. (It may be easier to accurately center the platter using Cole jaws.) Turn the area inside the foot, turning away the recess, and creating an attractive bottom. Scrape to remove all irregularities and tearout. Sand. Sign. Finish.