

# Quick-Start Project

By Jim Rodgers

This is a great first project for segmented turners. More than 50 woodturners have successfully completed this as their first segmented project. You can, too!

You can turn this on a mini lathe after assembling with just two contrasting wood species.

Note: The cross-section drawing and the cutting summary are reprinted from WoodPro, a software program ([woodturnerpro.com](http://woodturnerpro.com)). Used with permission.

- Prepare stock
  - True and square stock
  - Rip stock to the required Board widths on Cutting Summary
- Cut segments
  - Trim one end of prepared stock to 15 degrees
  - Flip over to cut first segment
  - Number first segment
  - Repeat for all twelve segments
  - Remove burrs by sanding each segment with 180-grit sandpaper
- Build rings
  - Build half rings first
    - Assemble ring in band clamp
    - Prepare two thin shims
    - Glue two half rings: segments 1-6 and segments 7-12
    - Assemble half rings into band clamp
    - Insert two shims between segments 6-7 and 1-12 (the unglued edges)
    - Tighten clamp while keeping the ring flat
    - Wipe off excess glue
  - Complete ring
    - Disassemble half rings from band clamp and examine for flatness with a straight edge
    - With a stationary belt sander, flatten the half rings and recheck with straight edge
    - Glue exposed ends and re-clamp
  - Flatten rings
    - Thickness sander
      - Flatten one side until no irregularities are visible
      - Reverse and flatten opposite side
    - Belt sander
      - Carefully sand one side until no visible irregularities are visible
        - Lay ring flat on the sander and slide carefully across the belt

- Rotate the rings one segment and repeat
  - Continue for 12 rotations, then check for flatness with a straight edge
  - Flip ring over and repeat process
  - Check for uniform thickness with dial calipers and adjust as required
- Assemble project
  - One each of two faceplates, attach a glue block for approximately 3<sup>1</sup>/<sub>2</sub>-inch diameter
  - On the lathe, true up the face of the glue block with a skew laid flat on the tool rest.
  - When flat sand with the ring flattening sanding stick
  - Glue the project base to one face plate centering carefully
  - Glue the top ring (ring 10) to the second face plate centering carefully
  - When the glue is dry on each faceplate attach to the lathe and re-flatten the assembly as described above
  - Proceed from both the bottom and the top of the vessel flattening at each ring completed
  - On the base face plate complete assembly through ring 6 only; on the other face plate complete through ring 7
  - Flatten the final level on both face plates
- Turn project
  - Turn the exterior
    - Mount the base face plate on the lathe headstock end
    - Place the other face plate (vessel top) on the live center and compress the two halves together with the tail stock quill
    - Turn the exterior shape
    - Remove from lathe
  - Turn interiors
    - Mount each vessel half on the lathe and complete the interiors
    - Assure the wall thickness at ring 6 and ring 7 are the same
  - Assemble the vessel
    - Remount the base on the headstock and the top on the tailstock and compress to check alignment as before
    - Pull the top half away slightly and add glue and recompress
    - After glue is dry, return the exterior of the vessel to correct any alignment errors
    - Part off the face plate holding the top of the vessel
  - Complete the vessel
    - Turn the neck carefully and at higher speed to completed shape
    - Sand the exterior of the vessel and apply finish to your satisfaction
    - Part off base from primary faceplate