

## SEGMENTED BOWLS

1. Draw a profile shape of the bowl full size. Draw inside and outside profile lines.
2. Divide the drawing into layers of wood thickness, for whatever size wood you will be using, most likely 3/4 inch.
3. Sketch vertical lines showing the O.D. and I.D. of each layer. Allow extra stock on each dimension for turning and glueing irregularities.
4. Measure and record the O.D. and I.D. for each ring. The difference, DIVIDED BY TWO, equals the width of that ring's wood. (see drawing)
5. Decide the # of pieces you want in each ring. (suggest 8 or 10 or 12 per ring)  
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To calculate LENGTH OF PIECES , use:  
  
L equals Pi (3.1415) times Ring Dia / # of pcs  
  
Example: for an 8" dia. ring of 12 pcs ... L equals  $3.14 \times 8 / 12 = 2.16"$ .
6. To determine ANGLE OF CUT , use:  
  
ANGLE equals  $360 / \# \text{ pcs} \times 1/2$   
  
Example: for 12 piece ring...  $360 / 12 \times 1/2 = 15$  degrees.
7. To cut ring pieces, use a table saw or power miter saw (or bandsaw, which will require a little sanding for good glue joints ) These angle cuts are very critical; they must be exact. Also the segment length must be precise. Experiment with various jigs on scrap wood until you get a perfect ring with no gaps at the joints.
8. Clamp rings with hose clamps. Keep segments as flat as possible. When dry, clean excess glue, sand or turn top and bottom surfaces flat and assemble rings into bowl. Glue one layer at a time. Stagger the glue joints from the previous layer.
9. Glue scrap wood to bottom layer for a faceplate mount or turn a recess into the bottom layer ( before you do any glueing ) if you wish to use an expansion chuck.
10. NOTE: combine woods of different colors, sizes and shapes for effects.