

Preparing a Segmented Turning

- Planning, Cutting, and Assembling



PLANNING:

Decide upon the size, shape, species, and “look” of your project.

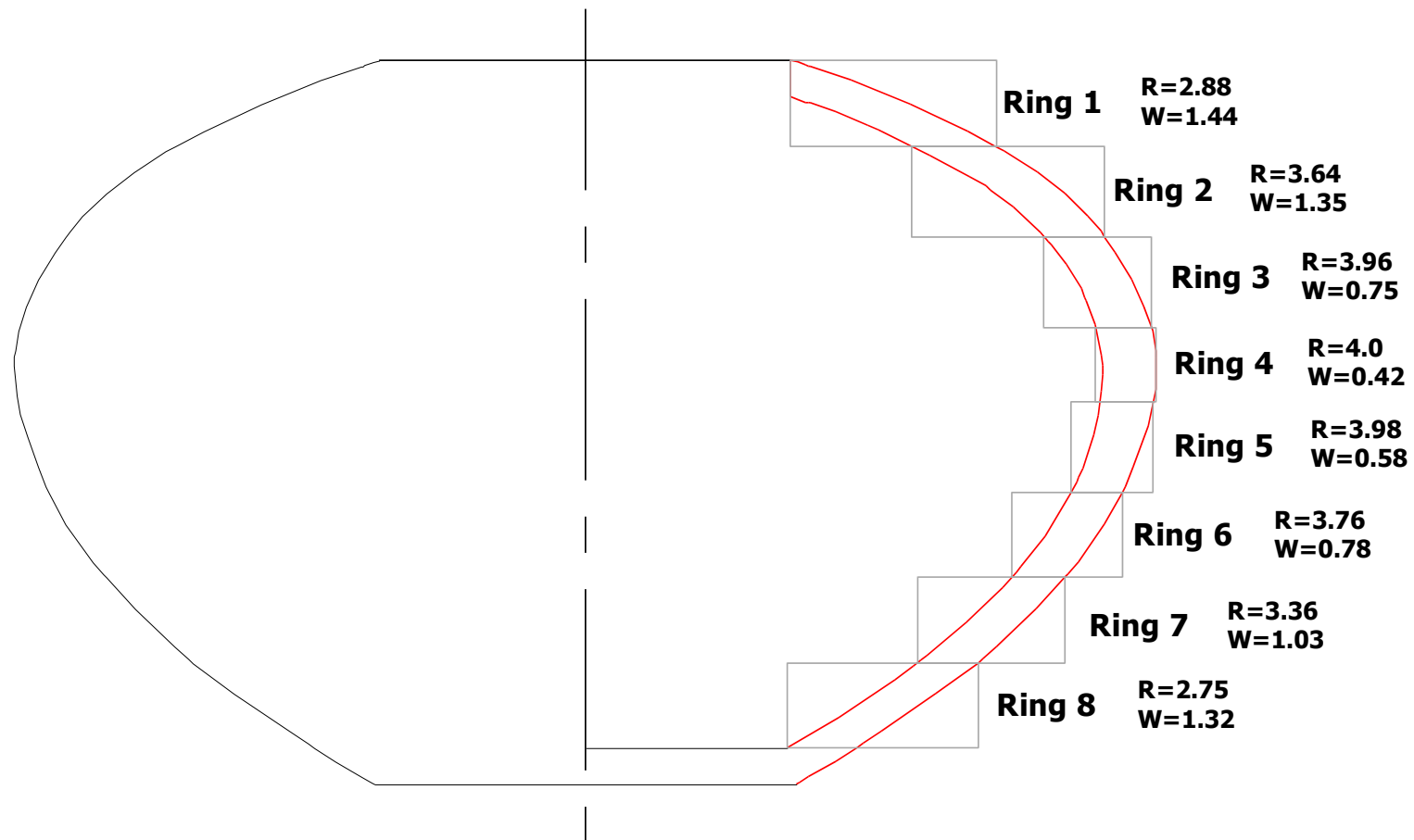


- The bowl is planned to be approximately 8” in diameter and 5” high (golden ratio)
- Most of the body will be ivorywood (a tropical boxwood.)
- The center ring is black palm faced with 1/32” birch plywood.
- The rings adjacent to the center ring are an ivorywood / leopard wood lamination.
- The base is a single piece of leopard wood.
- The trim ring is a single piece of walnut.

PLANNING:

Determine the Segment Piece Sizes

1. Sketch a full size drawing, showing planned wall thickness and ring height (H).
2. Measure and record the outside radius and segment width for each ring. Add inner and outer margins, if desired.



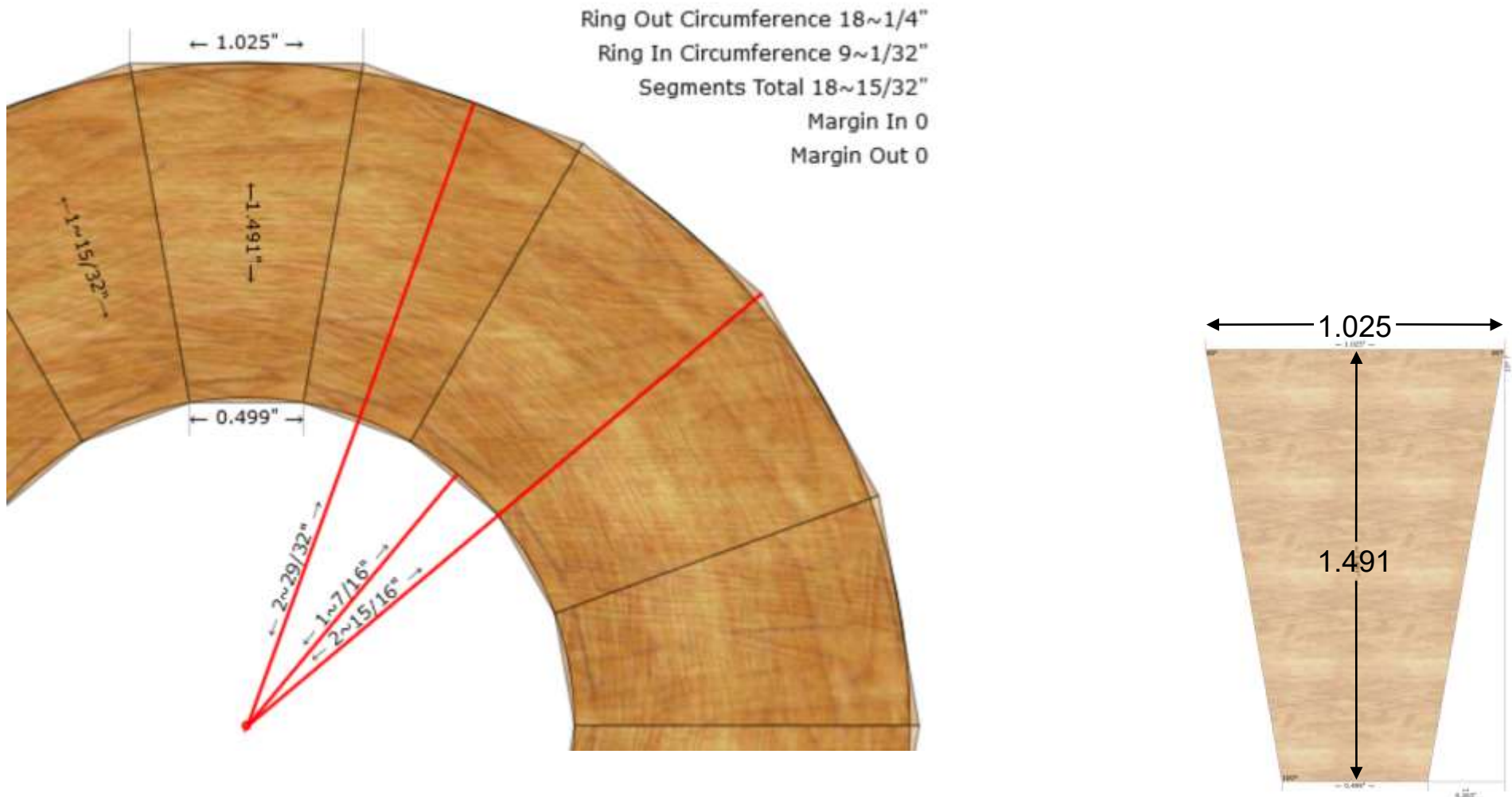
Go to: <https://www.blocklayer.com/woodturning-segments.aspx> , (be sure to select “inch”)

For each ring, enter the number of segments, the outside radius, and the width (appearing in the table as “Ring Thickness”).

Segments	<input type="text" value="18"/>	←
Ring Outside Radius	<input type="text" value="2~29/32"/>	←
Ring Thickness	<input type="text" value="1~11/32"/>	←
Margin Inner	<input type="text" value="-"/>	
Margin Outer	<input type="text" value="-"/>	
Full Scale	<input checked="" type="checkbox"/>	
Draw Ring	<input checked="" type="checkbox"/>	
Draw Radius Lines	<input checked="" type="checkbox"/>	
Color	<input checked="" type="checkbox"/>	
Segment Presc	<input type="text" value="Decimal"/>	

Calculate

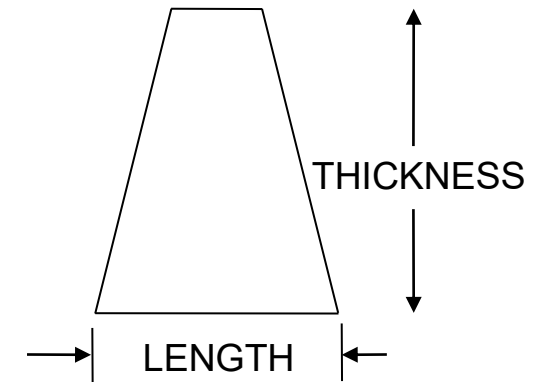
- The results appear on the same web page.
- The segmented ring is depicted, as well as the dimensions of the individual pieces.



- Record the resulting thickness and length.
- Repeat for each ring.

Tabulate the results and Determine Material Amount of Material Needed

RING	NUMBER OF SEGMENTS (#)	RING HEIGHT	SEGMENT THICKNESS	SEGMENT LENGTH (L)	APPROX. REQ'D MATERIAL (L x #) + 4"*
1	18	0.60	1.49	1.03	23"
2	18	0.60	1.41	1.29	24"
3	18	0.64	0.80	1.40	30"
4	18	0.52	0.49	1.41	30"
5	18	0.64	0.65	1.41	30"
6	18	0.60	0.83	1.33	28"
7	18	0.60	1.07	1.19	26"
8	18	0.60	1.37	0.97	22"



*The added 4" permits holding against cutting fence

CUTTING the SEGMENTS



Using the data table you created, cut lengths of material, and dress them to the required width and thickness.



Mark one face of each strip.

CUTTING: Table saw configured for segment cutting



CUTTING: Useful measurement equipment

Digital caliper for
measuring segment
cut size



Digital angle gauge used
in checking fence angle

ASSEMBLY: Useful supplies and equipment

Extended set time
glue



Silicone Sheet

Assembly / Clamping Board



ASSEMBLY: Creating a ring

Trial Assembly (dry)



Compensating for poor fit
By using spacer rods



ASSEMBLY: Completing the assembly

Prepared base:
Bored 1/4" deep to fit over tailstock spindle.
Dressed for scroll clamping.



Begin assembly by gluing the prepared base to the bottom ring.
Continue to glue remaining rings, forming the turning blank.

