# Bowl using stacked laminated rings with an equal offset rotation for each row

#### Start with a plan

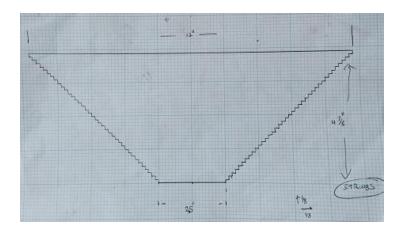


Figure 1

Create table of rings, with designed diameter increase for each row, row height, and row depth. Spreadsheet works best for this, see figure 2.

Ring Width	0.75		Ring Height	0.125		
Radius Increase	0.125					
# of boards required	6					
Ring #	ID	OD	Board #	Bowl Height	Row	dia
40	10.75	12.25	4	5		
39	10.5	12	3	4.875	6	11.2
38	10.25	11.75	2	4.75	6	9.7
37	10	11.5	1	4.625	6	6.7
36	9.75	11.25	6	4.5	6	5.2
35	9.5	11	5	4.375	6	
34	9.25	10.75	4	4.25	5	
33	9	10.5	3	4.125	5	9
32	8.75	10.25	2	4	5	
31	8.5	10	1	3.875	5	6
30	8.25	9.75	6	3.75	5	
29	8	9.5	5	3.625	5	3
28	7.75	9.25	4	3.5	4	12.2
27	7.5	9	3	3.375	4	10.7
26	7.25	8.75	2	3.25	4	9.2
25	7	8.5	1	3.125	4	7.
24	6.75	8.25	6	3	4	6.2
23	6.5	8	5	2.875	4	4.7
22	6.25	7.75	4	2.75	4	3.2
21	6	7.5	3	2.625	3	
20	5.75	7.25	2	2.5	3	10
19	5.5	7	1	2.375	3	
18	5.25	6.75	6	2.25	3	7
17	5	6.5	5	2.125	3	
16	4.75	6.25	4	2	3	4
15	4.5	6	3	1.875	3	
14	4.25	5.75	2	1.75	2	11.
13	4	5.5	1	1.625	2	
12	3.75	5.25	6	1.5	2	
11	3.5	5	5	1.375	2	
10	3.25	4.75	4	1.25	2	
9	3	4.5	3	1.125	2	
8	2.75	4.25	2	1.123	2	
7	2.5	4	1	0.875	1	11
6	2.25	3.75	6	0.75	1	, ;;
5	2	3.5	5	0.625	1	8
4	1.75	3.25	4	0.5	1	,
3	1.5	3.23	3	0.375	1	5
2	1.25	2.75	2	0.25	1	,
1 Solid	0	2.75	1	0.125	1	2
Base		2.0		0.123		

Figure 2 (Spreadsheet created by Denny Edwards)

#### **Build board for bowl**

Build board large enough to create the panels needed using the design from plan above.

#### **Dry fit strips**



Figure 3

## Glue section together

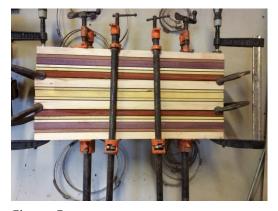


Figure 5

## Cut the panels



Figure 8 Figure 9

#### Glue up strips

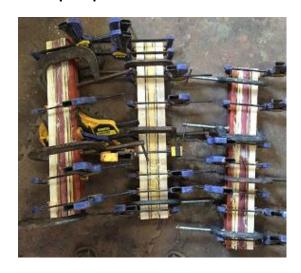


Figure 4

## Final board size 12"x 24" x 1.4"



Figure 6



Figure 7

## Draw rings on the panels







Figure 10 Figure 11

# **Cut out the rings**



Figure 12

## **Lightly Sand rings**



Glue first ring to waste block



Figure 14

Figure 13

# Glue pairs of rings



Figure 15



Figure 17

# Glue rings with a small but equal offset rotation



Figure 16



Figure 18