The Chart Inches..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
1-1/2	.4586	3	.9172	4-1/2	1.376
1-5/8	.4968	3-1/8	.9554	4-5/8	1.414
1-3/4	.5350	3-1/4	9936.	4-3/4	1.452
1-7/8	.5732	3-3/8	1.032	4-7/8	1.490
		3-1/2	1.070		
2	.6115	3-5/8	1.108	5	1.528
2-1/8	.6497	3-3/4	1.146	5-1/8	1.567
2-1/4	.6879	3-7/8	1.185	5-1/4	1.605
2-3/8	.7261			5-3/8	1.643
2-1/2	.7643	4	1.223	5-1/2	1.682
2-5/8	.8025	4-1/8	1.261	5-5/8	1.720
2-3/4	.8408	4-1/4	1.299	5-3/4	1.758
2-7/8	.8789	4-3/8	1.338	5-7/8	1.796

The Chart Metric..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
6cm	1.834	60	18.344	114	34.853
9	2.751	63	19.261	117	35.770
12	3.669	66	20.178	120	36.688
15	4.586	69	21.095	123	37.605
18	5.503	72	22.013	126	38.522
21	6.420	75	22.930	129	39.439
24	7.338	78	23.847	132	40.356
27	8.255	81	24.764	135	41.273
30	9.172	84	25.681	138	42.191
33	10.090	87	26.599	141	43.108
36	11.006	90	27.516	144	44.025
39	11.923	93	28.433	147	44.942
42	12.841	96	29.350	150	45.860
45	13.758	99	30.267	153	46.777
48	14.675	102	31.185		
51	15.592	105	32.102		
54	16.509	108	33.019		
57	17.427	111	33.936		

8-11 plate Segment Width= diameter / 3.2709

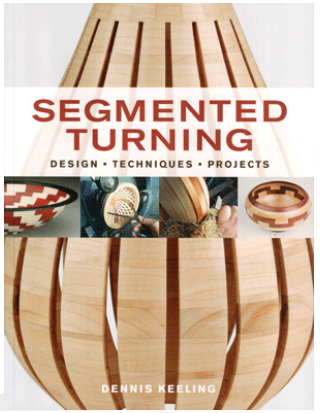
the

SegEasy Plate User Guide 8-11s

A Word...

The Seg-Easy plate is a simple and easy way to make open segmented vessels. The 8-11 plate accepts eight segments and has a 11 degree gap. The miter angle is 17 degrees.

There are many ways to use this creative tool. A good reference is “Segmented Turning” by Dennis Keeling, Taunton Press in the U.S. and “Segmented Turning a Practical Guide” by GMC publications in the U.K.



You can see a few of Dennis’s projects at www.dkeeling.com and mine at www.jerrybennettart.com.

Jerry Bennett

Plate Assembly...

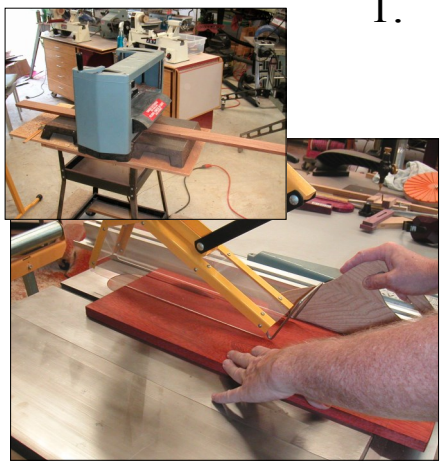
For the required stiffness, attach the SegEasy plate to a 3/4” thick piece of MDF or plywood cut to the same diameter as the plate, using #6 x 3/4” flat-head wood screws.

Drill a 1/8” center hole through the MDF disk. This hole must be absolutely perpendicular or alignment errors can occur when gluing the segments. Use the drill bit as a pin to align the SegEasy Plate with the MDF. Drill the holes for the #6 x 3/4” flat-head screws with a self-centering bit and attach. If you have both plates, you can put one on each side of the MDF or plywood using the same procedure.

Safety Caution: *The SegEasy Plate is for assembly only and is not designed for use under power. Improper use could result in injury.*

Step by Step...

1.

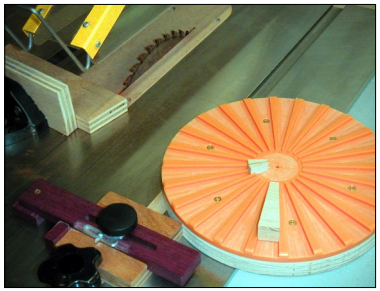


Material preparation is one of the most important tasks. Plane material to the desired thickness and rip into the required strip widths. Be sure to add 3 inches or so in length for safe handling while cutting segments. If your planer is snipe-prone like mine, just exclude that part of the board. Mark the layer number on the end of each strip.

The examples show the 24-4 plate. The procedures are the same for all plate configurations.

2.

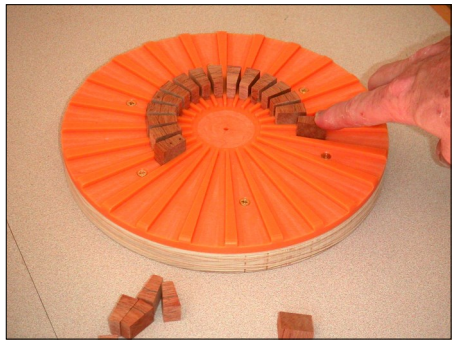
The segments do not have to be perfect. They just have to fit snugly in the plate. Cut a test segment from a wide board and adjust the angle for a tight fit. Doing it this way, you do not have to worry about the degrees.



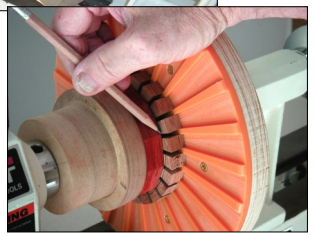
3.

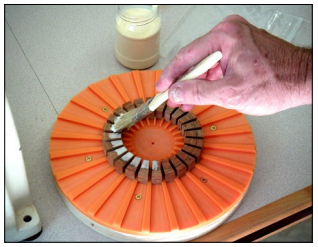
As the segments are cut, put them in numbered bags. Remember to cut a few extra.

4. Put a layer of segments into the plate snuggly. They will stay in place with normal handling. With larger and heavier segments, a rubber band may be necessary.



5. Position plate on tailstock pin and locate segments forward against the previous layer. Mark glue line. This is a good time to make sure each segment is flat. They will be if the thickness is correct. You did cut extras … Right?

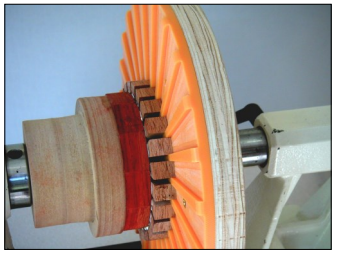


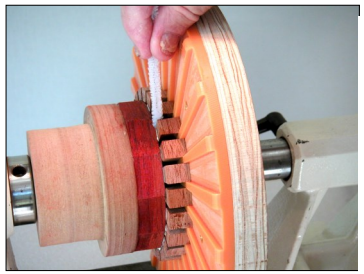


6.

Apply glue up to the glue line with a small brush. I use regular Titebond glue which sets rather quickly. A slower setting glue will slow down the process.

7. Place plate back on the lathe and tighten just enough to set the glue.





8. For quick, easy glue cleanup between segments, I use damp pipe cleaners. If they are too wet, the glue will be washed out of the bond area.
Some prefer to use a needle file to remove the glue after it dries.

9. Let the layer dry for 10 to 15 minutes. Then, remove the plate by gently prying it free from the segments with an awl. If a segment comes loose, simply replace it by eye and allow a little more drying time on subsequent layers. The release time is dependent upon the setting time of the glue.