The Chart Inches..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
4	.245	6	.367	8	.489	10	.611
4-1/8	.252	6-1/8	.375	8-1/8	.497	10-1/8	.619
4-1/4	.260	6-1/4	.382	8-1/4	.505	10-1/4	.627
4-3/8	.268	6-3/8	.390	8-3/8	.512	10-3/8	.635
4-1/2	.275	6-1/2	.398	8-1/2	.520	10-1/2	.642
4-5/8	.283	6-5/8	.405	8-5/8	.528	10-5/8	.650
4-3/4	.291	6-3/4	.413	8-3/4	.535	10-3/4	.657
4-7/8	.298	6-7/8	.420	8-7/8	.543	10-7/8	.665
5	.306	7	.428	9	.550	11	.673
5-1/8	.313	7-1/8	.436	9-1/8	.558	11-1/8	.680
5-1/4	.321	7-1/4	.443	9-1/4	.566	11-1/4	.689
5-3/8	.329	7-3/8	.451	9-3/8	.573	11-3/8	.696
5-1/2	.336	7-1/2	.459	9-1/2	.581	11-1/2	.703
5-5/8	.344	7-5/8	.466	9-5/8	.589	11-5/8	.711
5-3/4	.352	7-3/4	.474	9-3/4	.596	11-3/4	.719
5-7/8	.359	7-7/8	.482	9-7/8	.604	11-7/8	.726

The Chart Metric..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
60mm	3.670	12	.734	18	1.101	24	1.468
65	3.976	12.5	.765	18.5	1.132	24.5	1.499
70	4.281	13	.795	19	1.162	25	1.529
75	4.587	13.5	.826	19.5	1.193	25.5	1.560
80	4.893	14	.856	20	1.223	26	1.590
85	5.200	14.5	.887	20.5	1.254	26.5	1.621
90	5.505	15	.917	21	1.284	27	1.651
95	5.810	15.5	.948	21.5	1.315	27.5	1.682
		16	.979	22	1.346	28	1.713
10 cm	.611cm	16.5	1.009	22.5	1.376	28.5	1.743
10.5	.642	17	1.040	23	1.407	29	1.774
11	.673	17.5	1.070	23.5	1.437	29.5	1.804
11.5	.703					30	1.835

36-3 plate Segment Width = diameter / 16.35

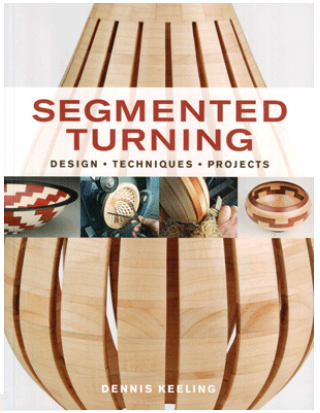
the

SegEasy Plate User Guide 36-3L

A Word...

The Seg-Easy plate is a simple and easy way to make open segmented vessels. The 36-3L plate accepts Thirty-six segments and has a 3 degree gap. The miter angle is 3.5 degrees. You can also use the 36-3 Wedgie.

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...

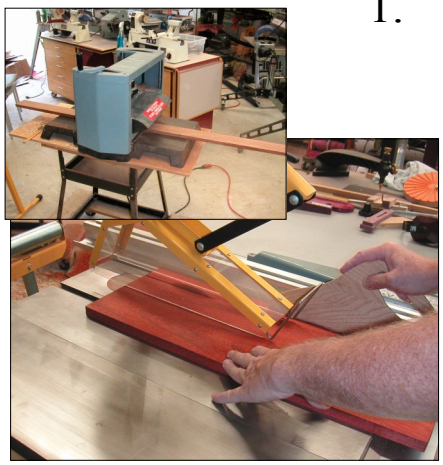
For the required stiffness, attach the SegEasy plate to two stacked and glued 3/4” thick pieces of MDF or plywood cut to the same diameter as the plate. Usie #6 x 3/4” flat-head wood screws to attach the plate to the MDF..

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

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.

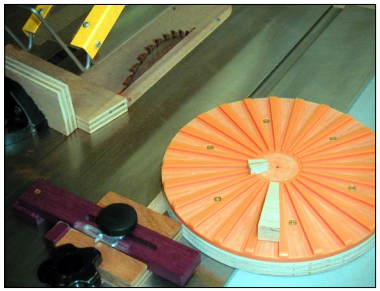


Material preparation is one of the most important tasks. Plane material to the desired thickness and rip into the required strip widths. Be sure to add 3 inches or so in length for safe handling while cutting segments. If your planer is snipe-prone like mine, just exclude that part of the board. Mark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

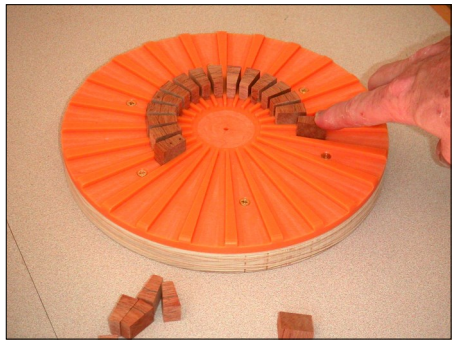
The segments do not have to be perfect. They just have to fit snugly in the plate. Cut a test segment from a wide board and adjust the angle for a tight fit. Doing it this way, you do not have to worry about the degrees.



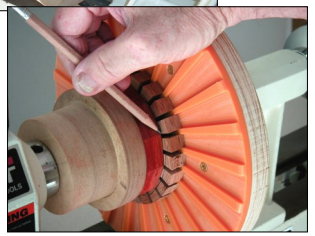
3.

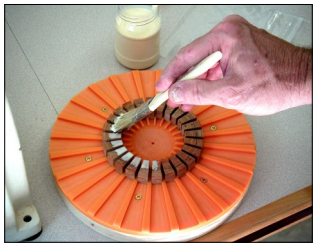
As the segments are cut, put them in numbered bags. Remember to cut a few extra.

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?

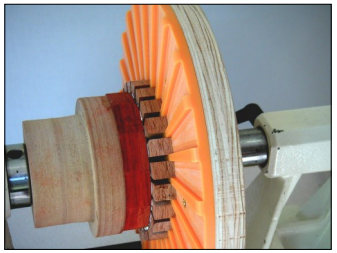


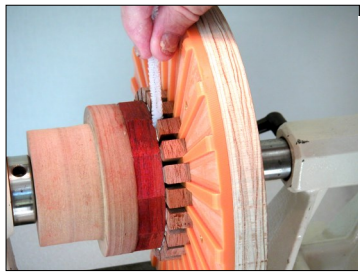


6.

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.