

The Chart Inches..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
4	.3852	6	.5777	8	.7703	10	.9629
4-1/8	.3972	6-1/8	.5898	8-1/8	.7823	10-1/8	.9749
4-1/4	.4092	6-1/4	.6018	8-1/4	.7944	10-1/4	.9869
4-3/8	.4213	6-3/8	.6138	8-3/8	.8064	10-3/8	.9990
4-1/2	.4333	6-1/2	.6259	8-1/2	.8185	10-1/2	1.011
4-5/8	.4453	6-5/8	.6379	8-5/8	.8305	10-5/8	1.023
4-3/4	.4574	6-3/4	.6499	8-3/4	.8425	10-3/4	1.035
4-7/8	.4694	6-7/8	.6619	8-7/8	.8546	10-7/8	1.047
5	.4814	7	.6740	9	.8666	11	1.059
5-1/8	.4935	7-1/8	.6861	9-1/8	.8786	11-1/8	1.071
5-1/4	.5055	7-1/4	.6981	9-1/4	.8907	11-1/4	1.083
5-3/8	.5176	7-3/8	.7101	9-3/8	.9027	11-3/8	1.095
5-1/2	.5296	7-1/2	.7222	9-1/2	.9147	11-1/2	1.107
5-5/8	.5416	7-5/8	.7342	9-5/8	.9268	11-5/8	1.119
5-3/4	.5537	7-3/4	.7462	9-3/4	.9388	11-3/4	1.131
5-7/8	.5657	7-7/8	.7583	9-7/8	.9509	11-7/8	1.143

The Chart Metric..

Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width	Layer Dia	Seg Width
60mm	5.777	12	1.155	18	1.733	24	2.311
65	6.258	12.5	1.204	18.5	1.781	24.5	2.359
70	6.740	13	1.252	19	1.829	25	2.407
75	7.222	13.5	1.300	19.5	1.878	25.5	2.455
80	7.703	14	1.348	20	1.926	26	2.504
85	8.185	14.5	1.396	20.5	1.974	26.5	2.552
90	8.666	15	1.444	21	2.022	27	2.600
95	9.147	15.5	1.492	21.5	2.070	27.5	2.648
10 cm	.9629cm	16	1.541	22	2.118	28	2.696
10.5	1.011	16.5	1.589	22.5	2.167	28.5	2.744
11	1.059	17	1.637	23	2.215	29	2.792
11.5	1.107	17.5	1.685	23.5	2.263	29.5	2.841
						30	2.889

24-4 plate Segment Width= diameter / 10.3854



the

SegEasy Plate User Guide 24-4L

A Word...

The Seg-Easy plate is a simple and easy way to make open segmented vessels. The 24-4L plate accepts twenty-four segments and has a 4 degree gap. The miter angle is 5.5 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

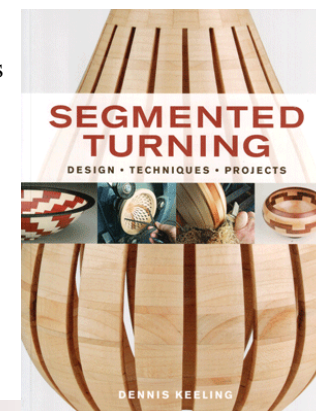


Plate Assembly...

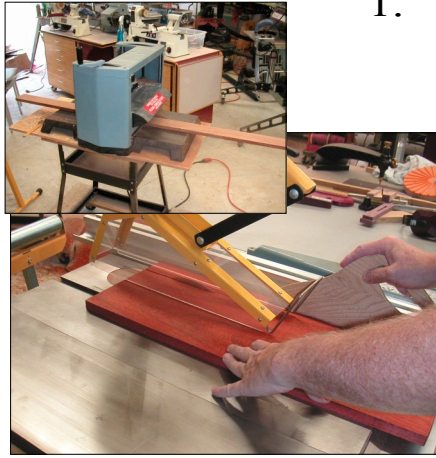


For the required stiffness, attach the SegEasy plate to two stacked and glued 3/4" thick pieces of MDF or plywood cut to the same diameter as the plate. Use #6 x 3/4" flat-head wood screws to attach the plate to the MDF..

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.

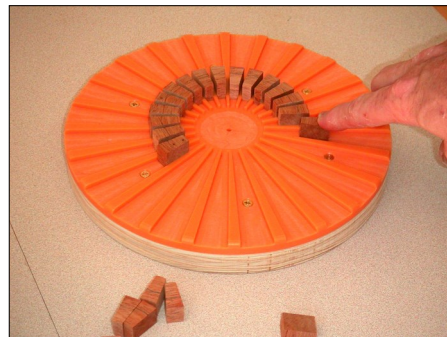


3.

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

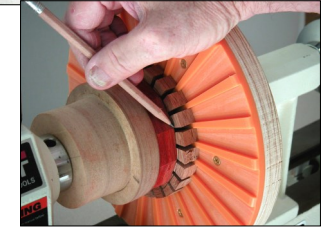


4. Put a layer of segments into the plate snugly. They will stay in place with normal handling. With larger and heavier segments, a rubber band may be necessary.



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?



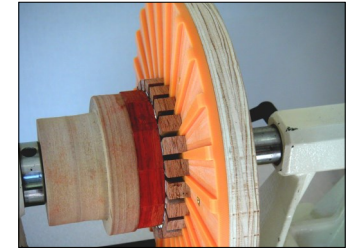
6.

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.



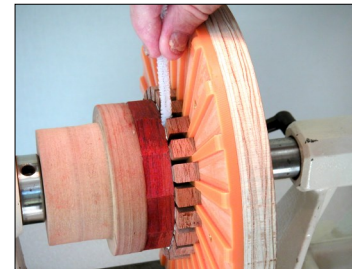
7.

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.

