

The Chart Inches..

Layer Dia	Seg Width						
		4	.5800	6	.8700	8	1.160
		4-1/8	.5981	6-1/8	.8881	8-1/8	1.178
2-1/4	.3262	4-1/4	.6162	6-1/4	.9062	8-1/4	1.196
2-3/8	.3444	4-3/8	.6343	6-3/8	.9243	8-3/8	1.214
2-1/2	.3625	4-1/2	.6525	6-1/2	.9425	8-1/2	1.232
2-5/8	.3806	4-5/8	.6706	6-5/8	.9607	8-5/8	1.251
2-3/4	.3987	4-3/4	.6887	6-3/4	.9787	8-3/4	1.269
2-7/8	.4169	4-7/8	.7068	6-7/8	.9968	8-7/8	1.287
3	.4350	5	.7250	7	1.015	9	1.305
3-1/8	.4531	5-1/8	.7431	7-1/8	1.033	9-1/8	1.323
3-1/4	.4712	5-1/4	.7612	7-1/4	1.051	9-1/4	1.341
3-3/8	.4894	5-3/8	.7793	7-3/8	1.069	9-3/8	1.359
3-1/2	.5075	5-1/2	.7975	7-1/2	1.087	9-1/2	1.377
3-5/8	.5256	5-5/8	.8156	7-5/8	1.106	9-5/8	1.396
3-3/4	.5437	5-3/4	.8337	7-3/4	1.124	9-3/4	1.414
3-7/8	.5618	5-7/8	.8518	7-7/8	1.142	9-7/8	1.432

The Chart Metric..

Layer Dia	Seg Width						
6cm	.8699	60	8.700	114	16.529	168	24.359
9	1.305	63	9.135	117	16.964	171	24.794
12	1.740	66	9.570	120	17.399	174	25.229
15	2.175	69	10.004	123	17.834	177	25.664
18	2.610	72	10.440	126	18.269	180	26.099
21	3.045	75	10.874	129	18.704	183	26.534
24	3.480	78	11.309	132	19.139	186	26.969
27	3.915	81	11.744	135	19.574	189	27.404
30	4.350	84	12.179	138	20.009	192	27.839
33	4.785	87	12.614	141	20.444	195	28.274
36	5.220	90	13.049	144	20.879	198	28.707
39	5.655	93	13.484	147	21.314	201	29.144
42	6.090	96	13.919	150	21.750	204	29.579
45	6.525	99	14.354	153	22.184	207	30.014
48	6.960	102	14.789	156	22.619	210	30.449
51	7.395	105	15.224	159	23.054	213	30.884
54	7.830	108	15.659	162	23.489	216	31.319
57	8.265	111	16.094	165	23.924	219	31.753

16-6 plate Segment Width= diameter / 6.89688



the SegEasy Plate User Guide 16-6

A Word...

The Seg-Easy plate is a simple and easy way to make open segmented vessels. The 16-6 plate accepts sixteen segments and has a 4 degree gap. The miter angle is 8.25 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.

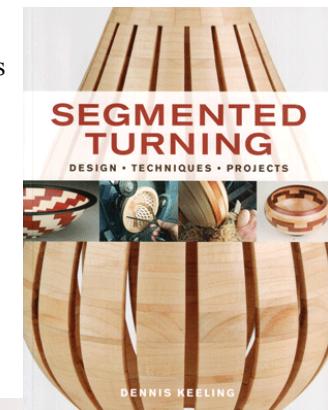
Jerry Bennett

Plate Assembly...

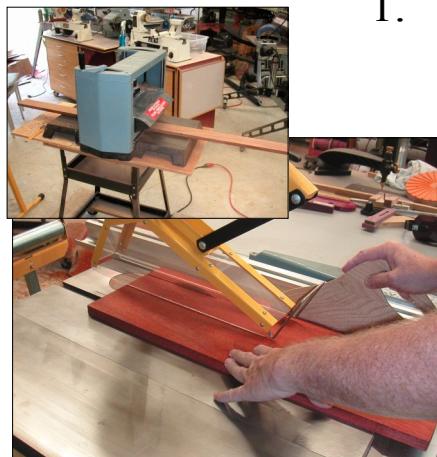


For the required stiffness, attach the SegEasy plate to two 3/4" thick pieces of MDF or plywood cut to the same diameter as the plate, using #6 x 3/4" flat-head wood screws. Drill a 1/8" center hole through the MDF disk. This hole must be absolutely perpendicular or alignment errors can occur when gluing 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.

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.

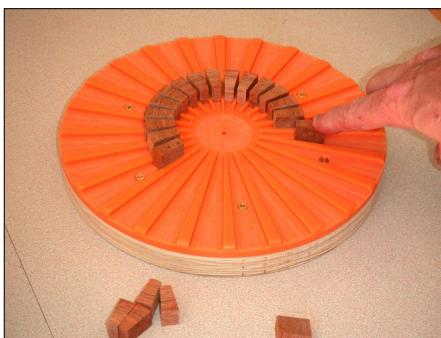
2.

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?



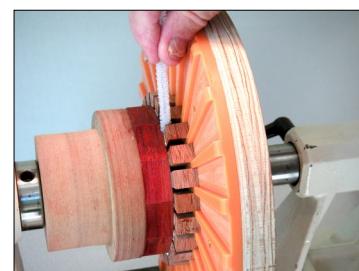
6.

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.



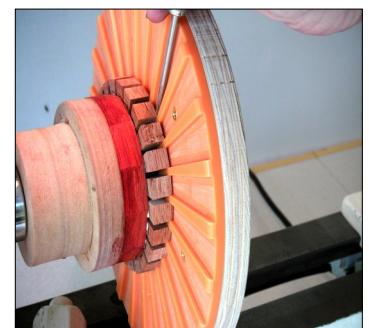
7.

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.