

Turning a Dovetailed Vase

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<https://sites.google.com/site/cabriturn/>

MLCS Dovetail Joinery System

- The MLCS Fast Joint precision joinery system offers a broad range of dovetail patterns that can be created with a router.
- Combining these dovetail patterns with vertical staves in a tapered vase yields a unique combination of joinery techniques that can be turned on a lathe
- This presentation provides an overview of the process used to make dovetailed vase

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Fast Joint Precision Joinery System
Use your router table and interchangeable templates to create up to 20 unique joints!

CUSTOMER RATING: ★★★★★

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SALE! 4 and 11 Template Sets until 1/31/17. This unique joining system with matching templates makes creative, custom joinery simple. Insert your bit in the router, insert a guide bushing into your router table insert, set your bit height and you're ready to go. Set male and female templates on opposite sides of the jig platform and start cutting. For stock 1/4" to 3/4" thick (1/4" to 3/8" for through dovetails) and up to 14" wide. **Four templates are included!** You can choose up to 16 additional decorative and interesting joint profiles to "spice up" the standard joints. For table mounted routers that accept template guide bushings only. Not compatible with Ryobi or Bosch router tables. Includes:

- One Fast Joint Aluminum Jig Platform with all necessary hardware
- Three Toggle Clamps & Two Spring Clamps
- One 3/16" HSS Spiral Upcut Bit
- One 5mm HSS Spiral Upcut Bit
- One 14" CT Dovetail Router Bit
- One Standard .308" OD Bushing
- One Tighter fit .311" OD Bushing
- One spring lock washer for bushing
- One Dovetail 7/16" OD Bushing
- One Brass Centering Pin
- One 3/8" x 3/8" Brass Set Up Bar

Includes:
Includes a Step-by-Step Instruction Booklet

4 Template Fast Joint System Set
Includes these templates:
• One Heart Template Set
• One Half-Blind Dovetail Template Set

HEART
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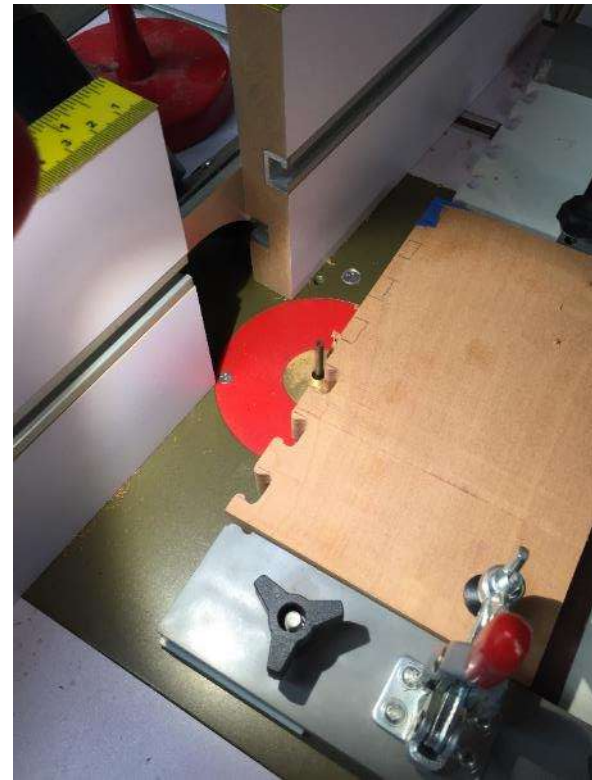
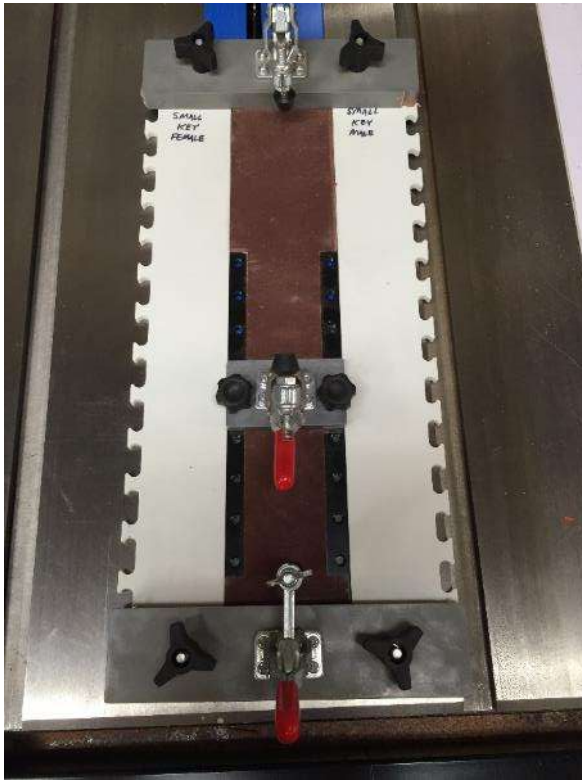
Selecting the 'palette' of wood

- The first step is to pick the 'palette' of wood to be used.
- Contrasting wood provides the best visual appeal.
- Because the vase developed for this example has six staves, three contrasting woods; maple, cherry and purpleheart, were used.



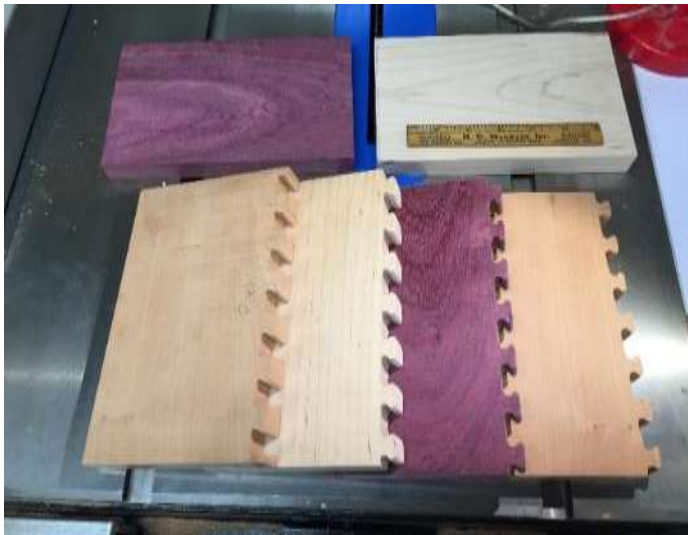
MLCS 'small key' dovetail template

- The 'small key' template was used to cut the dovetails



Dovetails joined and glued

- The contrasting boards were glued together



Cutting the Staves

- Double angle staves were cut for a tapered vase

Figure 4. Table of miter and bevel angles for cutting tapered staves. Numbers used for the example project are highlighted.

Staves	4	6	8	10	12
10	0.0	45.0	0.0	30.0	0.0
20	5.0	44.9	2.9	29.9	2.1
30	9.9	44.7	5.7	29.5	4.1
40	14.5	43.1	8.5	28.7	6.1
50	18.9	41.8	11.2	28.0	8.1
60	22.9	39.9	13.7	26.9	9.9
70	25.8	37.8	16.1	25.7	11.7
80	27.8	35.4	18.3	24.2	13.4
90	29.3	32.8	20.4	22.5	14.9
100	30.3	30.0	22.2	20.7	16.3
110	30.7	27.0	23.8	18.7	17.6
120	30.3	23.9	25.3	16.7	18.7
130	29.3	20.7	26.6	14.5	19.7
140	27.8	17.4	27.6	12.2	20.6
150	25.8	14.0	28.5	9.8	21.3
160	23.2	10.5	29.1	7.4	21.8
170	20.0	7.1	29.6	5.0	22.2
180	0.0	0.0	30.0	2.5	22.4

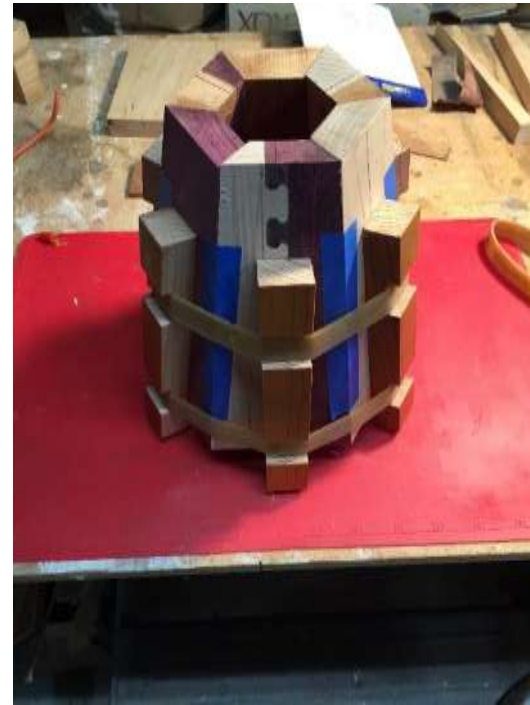
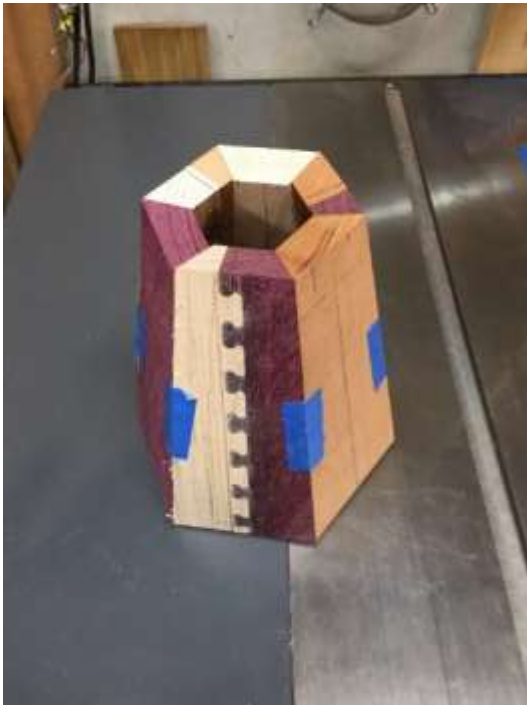
20° taper: Miter 5.7°, Bevel 29.5°

This table is from an American Association of Woodturners (AAW) article on 'Tapered- Stave Bowls' written by Bill Wells in the April 2016 issue



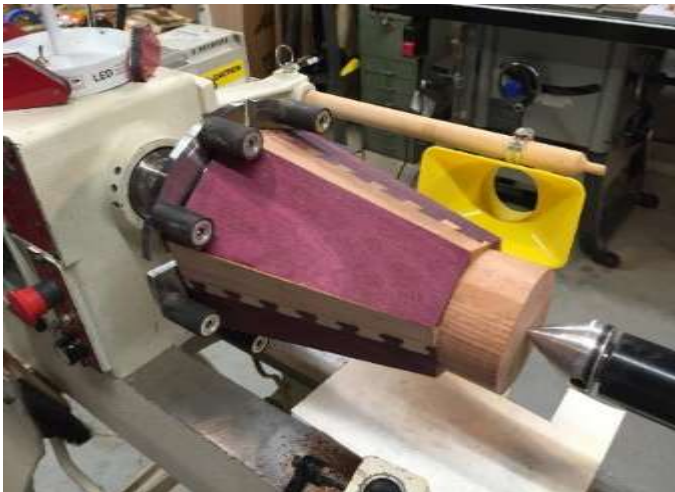
Glueing the Staves

- Six vertical staves were cut.
- Three of them were cut with the Fast Joint dovetail joints centered and three were cut from the three blank wood selections.
- The six staves were then fit-checked, glued and clamped. The clamps shown were adapted from the article by Bill Wells



Turning the Vase

- The assembled stack of vertical staves were transferred to the lathe where a base section was mated to the smaller end.
- Once the cherry base was mated to the 'stack', a tenon was cut in the base so that the 'stack' could be held on the drive end of the lathe with a 4-jaw clamp.
- The lathe used here is a Jet 16-42 with variable speed



Completing the Shape



Final Finishing

- The vase was finished with Watco Oil and buffed

