

Alan Stratton

- Weekly Woodturning Video – AsWoodTurns.com
- Host annual Christmas Ornament Challenge – This November is number 9.
 - All crafts invited to participate
 - All experience levels can join in the fun.
 - Require only 1 photo per submission.
 - Submit during November at AsWoodTurns.com/Challenges
- My specialty is in turning diversity.
- First turning as a Graduate Student – I made my living and dining room sets.

Turning Inside - Out

In General:

1. Stock is shaped.
2. Stock is taken apart, rotated, and re-fastened.
Previous Exterior becomes the Interior.
3. Stock is again mounted, and shaped.
Interior is distinctly different than a hollowed project.

Turning Inside – Out – Styles

Easy

- 4 Stave
 - 4 Pieces of Stock are milled square and uniform.
- 2 Stave
 - 2 Pieces of Stock are milled identical.

Moderate

- 3 Stave
 - 3 Pieces of Stock are cut in a rhombus (squashed square) shape with angles of 30 and 60 degrees.
 - 60 degree edges mate in turning 1 and turning 2.

Difficult

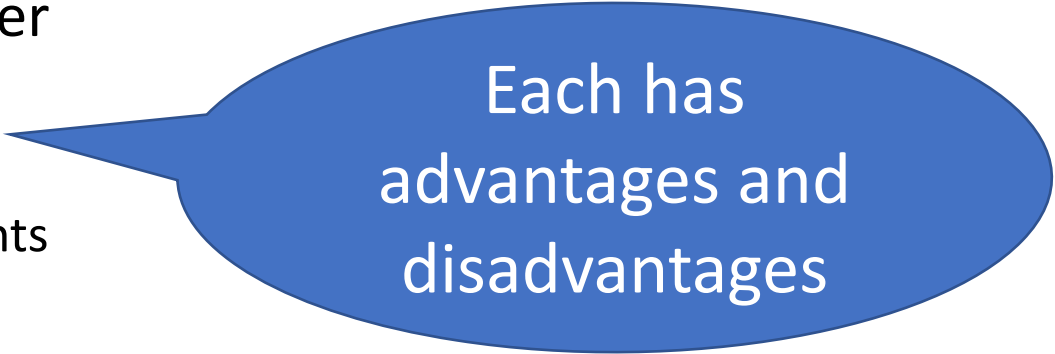
- 6 Stave
 - 6 Pieces of Stock are milled the same as 3 stave.
 - 30 degree edges mate in turning 1 and turning 2.

Killer


- N Stave
 - You are on your own for this geometry. Just remember that the inner angle is 360 divided by the number of staves.

Step 1 – Prepare Turning Stock

- Saw 3 identical staves with corner angles of 30, 60, 30, 60 degrees.
- Temporarily fasten together
 - Paper glue joint
 - Band clamps
 - Dots of CA glue on end joints
 - Strapping tape.
 - Screws

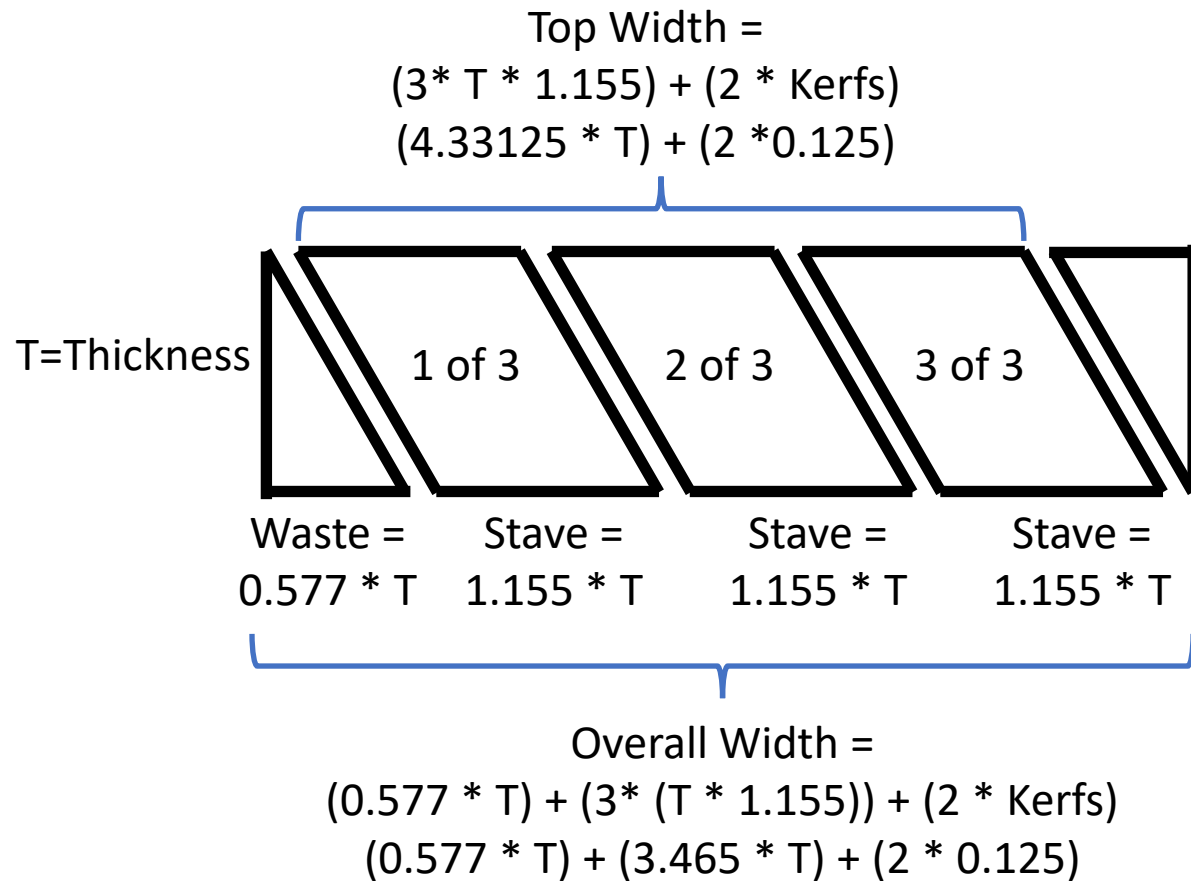


Each has advantages and disadvantages



Safety must be a prime consideration

Just a Little Math



For 1.25" Thick Board
Overall Width =
 $= (0.577 * 1.25) + (3.465 * 1.25) + (2 * 0.125)$
 $= (0.72125) + (4.33125) + (0.25)$
 $= 4.58125$

Step 2 –Turning

- Do not cut too deeply.
- Watch out for transitions at start of cut.
- Difficult to visualize the interior shape.
- Finish now what will become the interior

Step 3 –Reversing

Take apart

Clean up

Permanent Fastening

Watch out for glue squeeze out.

- Optionally, insert an interior object.
 - Only if interior object will not fit between the stave openings.

Step 3 –Final Turning

- Cutting a lot of air
- Stave edges become knife sharp.
- Carefully sand
- Ease the knife edges.
- Apply finish
- Add
 - Interior object
 - Top finial – if needed
 - Bottom finial – if needed

Resources

- American Woodturner - February 2010
 - Preparation with BandSaw
- AsWoodTurns.com
 - Woodturning Inside Out 3 Stave Art Flame
 - www.aswoodturns.com/2019/06/triple-flame/
 - Woodturning Two Stave Inside Out Heart Pendant
 - www.aswoodturns.com/2019/08/two-stave-heart/
 - Turning Inside Out Vase – Not Solely For Ornaments
 - www.aswoodturns.com/2019/05/inside-out-vase/
 - Woodturning Inside Out Open End Christmas Ornament With LED
 - www.aswoodturns.com/2017/11/inside-out-open-end/
 - Designing Two Stave Inside Out Christmas Ornament
 - www.aswoodturns.com/2017/09/inside-out-2-stave/
 - Inside Out Christmas Ornament – The Basics
 - www.aswoodturns.com/2017/08/inside-out-christmas-ornament-the-basics/