

Rodmaking Class

Student Nodeless Checklist

This checklist reinforces key teaching points, can be used as a “Cheat Sheet”, and may serve as a partial cure for Student CRS Syndrome:

Cutting

- Cut Sections with Razor Saw
- Rotate Culm so teeth of saw cuts enamel first
- Color Code the section butt side with marker and record color order

Heat Treat

- Preheat oven to 375
- Place sections on middle shelf on “Rat wire”
- Set timer for 9 minutes
- Rotate strips at half way through heat treatment
- Remove at end and let cool off

Splitting

- Only hold the bamboo froe in one hand
- Use the other hand for the mallet
- Keep froe perpendicular to the enamel
- Start the split
- Use mallet hand to “pinch” the top of the section
- Work the froe against the way it wants to go
- Split $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{2}$, and $\frac{1}{2}$ to get 24 pieces
- Bottom of section piece should be “pie” shaped

Splicing Preparation

- Lay out pieces from sections
- Insure colored ends all facing same direction (right)
- Dress the section pieces
 - Flatten pith side with plane
 - Correct any undercuts the split section pieces are trapezoidal
- Mark the removed pith side with numbers/lines to mark order of section pieces

Splicing

- Put the piece in the splicing block with the enamel side in the machined groove
- Plane the section piece flat
- Flip the strip long ways (if not the butt or tip piece)
- Plane the other end
- Now dry fit the splices together
 - Check for a good fit / clean splice
 - Sight down the pieces and adjust until they line up
 - Put a “truth mark” over the splice
- Check all pieces in the strip and put aside for gluing

Gluing

- Place the strips in order to be glued
- Layout clamps next to splices
- Apply Glue to both pieces splice area
- Align the splice on truth mark
- Hold the middle of splice with one hand
- Adjust the pieces so the enamel is flush in the middle
- Clamp the end of splice area first
- Clamp the middle
- Clamp remaining end of splice
- Repeat until strip is done and put aside to dry

Rough Strip Preparation

- After glue is dry unclamp
- Use mill bastard file and lightly file any excess glue from enamel surface
- File any uneven enamel areas flat
- Plane the pith side of splices flat
- Plane off tabs of splices in the direction of splice
- Last check on uniform shape of strip side

Finding 1st Angle

- Use 1st wooden form
- Inspect strip and put the most “ideal” side down in form
- Check that enamel side is placed correctly
- Start planing using rough milling technique
 - Plane one end
 - Flip strip and form
 - Always plane into the “rough” area and move forward
 - Plane angle to the enamel
- Check angle all the way down the strip when finished
- Correct if necessary

Finding 2nd Angle

- Use 2nd wooden form
- Place 1st 60-degree angle down
- Start planing using rough milling technique
- Plane the strip down to the enamel and not to the form
- Check angle all the way down the strip when finished
- Correct if necessary

Rough Taper

- Use the final form
- Set the taper in the form
- Register strips to the form
- Note – check the butt sides of strips to insure they are not flipped backwards
- Evaluate strip and put “best” 60-degree angle down in the form
- Adjust the plane so you are taking approximately no more than .005 shavings
- Start planing the rough taper
 - Start at tip
 - Slowly back up with each pass until you incorporate the whole strip
 - Make one full pass down the strip
 - Check the angle
 - Flip strip if angle is good and repeat on 2nd side
 - Note – never flip a strip without checking the angles
- Stop planing when strip is approximately .030 above taper and put aside

Final Taper

- Clean up area and clean out form with brush
- Sharpen plane blade for each strip
- Put the splice side facing back towards the plane blade
- Place strip in the form back from where final taper is set
- Adjust the plane so you are taking only approximately .002 - .003 thick shavings
- Plane until you can make a long continuous pass down the strip
- Flip the strip so the splice is down in the form – still back from final position
- Make long single passes in planing
- Plane strip down until almost to metal
- Move strip forward to final position
- Plane strip until the plane just slides down the form removing no more bamboo
- Remove strip