



Kevin Felderhoff *Flying Winged Vase: Transforming a Crotch*

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Learn how to turn a **Flying Winged Vase** that will be an heirloom treasure to enjoy for many years. Kevin's demonstration emphasizes turning with a gouge and hollowing. When planning a project, Kevin will seek the natural beauty of the wood. The orientation of the crotch is important. One needs to strive to bring out the beauty inside the piece and one position may prove better than another. He begins his demonstration with a discussion of basic woodturning.

Steps

1. Identify the wood and envision the correct cut to enhance the beauty of the Winged Flying Crotch.
2. Mount a board on the branches to support the tail stock.



3. Mount the Crotch to the lathe with a spur center and live center on the tail stock. Aligning the crotch on the lathe so the wings and body of the vase line up evenly. bring out the best characteristics of the wood. This will maintain integrity of the shape of the vase.



Kevin Felderhoff

Flying Winged Vase:

4. Squaring the bottom of the vase for the mounting of the face plate.



- 5.. Mounting the face plate to bottom of the vase



6. Rounding up the middle of the vase and shaping the underside of the wings of the crotch..



7. After the base, middle and under side of the wings are rounded and shaped, the neck and wings are turned to size. **Push Cut..**



8. View of wood to appreciate the challenge and integrity of the wings.



9. Steady rest is mounted and start shaping the top side of the wings of the crotch.



- 10. View of turning top side of wings of crotch.



- 11. View of turning passes on the wing turned similar to a cowboy hat on the brim whereas you take small cuts and work from the outside of each wing to protect the fragility of the wing due to it not being supported.



- 12. Starting from the outside, a push or pull cut can be made to round and shape the neck of the vase. The cut should be stopped short of the top edge so that the bark is not torn off. Make a push cut from outside to center as you cut down through the bark. This will give a clean, sharp edge. The use of pressure is important in cutting natural edge pieces because the gouge is not in continuous contact with the wood and cuts air. There are two pressures you need to consider: **a.)** down pressure on the tool rest to maintain stability and **b.)** inward pressure needs to be consistent so the gouge is not plunged into the void between wood contacts. The gouge cannot be sharp enough. The gouge should be sharpened once for the inside, once for the outside, and before final cuts. Cut only about a third of the way down to achieve the desired wall thickness. Then move to the next portion and do not go back to the top or the result will be a broken vase. As the cuts go deeper into the vase, the tool rest should be angled into the vase to provide support to the gouge and reduce vibration. The lathe should always be turned off before the tool rest is repositioned. Always spin the piece after the tool rest is repositioned to ensure the piece will clear all around the edges.

- 13. Drill out an access and drill to a depth where you think the bottom of the vase will be.

- 14. Setting up Hollowing System and adjust the laser measuring the wall thickness and hollow the top half of the neck and top of the body of the vase. Laser aids in determining the wall thickness and reduces the amount of stopping and starting due to measuring.



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Flying Winged Vase:

15. Hollow the Top Half of the vase.



16. Remove steady rest and insert a jam chuck to support the wings of the vase while finishing shaping the bottom half of the vase.



17. Shaping the outside bottom of the vase.



18. Put the steady rest back in place and set up the Hollowing system again to hollow out the bottom half of the vase. You can see the laser on this picture.



19. Measure wall thickness to about 1/4 inc to 5/16 inch.

20. Scraping the inner walls to smooth them out using a scrapper



21. Turning the tendon on the base for holding onto it for final sanding.



- **Safety:** Wearing eye protection, preferably a face shield; not using rags near the lathe; rolling up long sleeves; using sharp tools.
- Tools Used: Bowl gouge and Hollowing system
- Sharpening: Kevin uses a 180 grit 8-inch CBN wheel on a slow speed grinder. He uses a jig to grind which gives him a rapid and reproducible edge on his tool.
- Sanding: Sand on the lathe at slow speed using 80, 120, 180, 220 and 320. The rotation of the sander and the lathe are opposite
- Finish: Danish oil, 5 coats of Lacquer, Beall Buffing System allowing the oil and lacquer to dry about 4 days between each application.
- YouTube Video:
<https://www.youtube.com/watch?v=tLPbQkn9O0w>