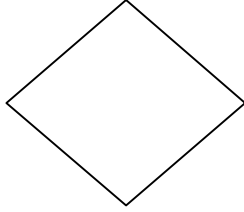


Femisphere Outline

- 1) Make a solid piece that is $3\frac{3}{4}$ ' square by at least $4\text{-}\frac{1}{8}$ th long.
 - A - Locate centers at each end.
 - B - Transfer center lines to all 4 faces.
 - C - Mark in $\frac{3}{8}$ s inch from each end on all 4 faces
 - D - Measure between and mark $\frac{1}{4}$ " off centerThis leaves 2 pieces w/ 1 piece @ $\frac{1}{2}$ " shorter.
- 2) Mount and partially rough to round, leaving flats at center line,
- 3) Leave mounted between centers, grain parallel and turn tenons on both ends.
- 4) Allow about $\frac{3}{8}$ ths to $\frac{1}{2}$ " for tenon at joint, cut one piece $\frac{1}{2}$ " longer than other on bandsaw.
- 5) Mount shorter piece, called top, by tenon and turn recess, then hollow out to make inside half of "Sphere" $1\frac{3}{4}$ " dia. Turn mortise, taking care that the recess is parallel, and about 2 inches inside diameter. Inside calipers will "lie to you", but if used properly will give good results. Use a cereal box pattern to check shape.
- 6) Remove top and mount bottom by tenon. True up end & turn a tenon for a firm fit.
- 7) Hollow for other half of inside sphere. Use pattern plus length of tenon.
- 8) Next put box halves together, but rotate top to 90 degrees from bottom.
- 9) Glue on two $\frac{3}{4}$ ' thick pieces centered and at joint line. Measure and mark as needed to mount between centers. Rotate the piece so that **neither tenon is used for mounting**.
- 10) Turn to round $3\frac{1}{2}$ " dia, except leave a little strong at the point half way between glue lines.

11) Start turning to shape, want to aim for 3 and 1/2 diameter by 3 1/2" long , (see sketch) .



12) Start with straight sides. Turn down to leave about 5/8ths tenon at each end. Remember the grain direction and wood that is turned away inside.

13) Next use a pattern and curve to match roughly the curve of a 7 in Dia. ball. Remember again the grain direction and wood that is turned away inside. The piece is fragile at this point!!!!!!

14) Scrape and shear scrape to avoid tear out.

15) Sand most of the shape good while on the lathe, leaving the 5/8ths tenons and the center area.

16) Remove the glued together piece and trim, leaving just some of that glued on tenon (now at 5/8th dia.)

17) Mount one end into a woodchuck 3 and 1/2 in. inside using a hose clamp to grip and hold the piece, while you sand away all of that glued on piece. Wants to come to a point about 1/8th dia., sand up if needed but don't be too fussy.

18) Remove, reverse and do the same for the other end. Almost done!!!

19) Remove from chuck and rotate the top back the 90 degrees that you rotated earlier. It should now look like a Femisphere that needs some hand sanding to blend the points together.

20) Hopefully it will look like it grew that way, but how in the world did you ever turn that shape???

21) My favorite sanding technique is to use a sanding block featured in SHOP NOTES a while back. I use a 3 by 24 belt sander belt and whatever grit seems to be needed. I have made several and most have a piece of cork glued to the bottom.